Building Arts
Comprehensive Academic Program Review
2012-13

Associate in Science Degree:
Architectural Design and Construction Technology
Drafting and Design Technology

Certificates:
Building Construction Technology Certificate
Drafting Technology Certificate

Institutional Research and Effectiveness
St. Petersburg College

June 2013
Comprehensive Academic Program Review Produced by

Building Arts Program

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Building Arts
2012-13 Comprehensive Academic Program Review
Institutional Research and Effectiveness

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Building Arts
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Executive Summary

Introduction
The program review process at St. Petersburg College (SPC) is a collaborative effort designed to continuously measure and improve the quality of educational services provided to the community.

Program Description
The Building Arts program consists of two academic tracks, Architectural Design and Construction Technology as well as Drafting and Design Technology. The Architectural Design and Construction Technology track blends practical skills with management training to prepare students for a career as a construction manager, planner or contractor, job superintendent or foreman, or construction or building inspector. The Drafting and Design Technology track combines technical skills with management and business training to prepare students to work as a drafter in the offices of architects, general contractors, civil and mechanical firms, municipal government and consulting firms.

Degrees Offered
Associate in Science Degrees in Architectural Design and Construction Technology and Drafting and Design Technology are offered at SPC. Further, certificates in Building Construction Technology and Drafting are offered.

Program Performance
- **Actual Course Enrollment** decreased in Fall (243), Spring (222), and Summer (109) 2011-12 from the previous year.
- **Unduplicated Headcount** increased in Fall 2011-12 (52), but decreased in Spring (48) and Summer (28) from the previous year.
- **SSH Enrollment** decreased in Fall (631), Spring (611), and Summer (168) 2011-12 from the previous year.
- **Student Semester Hour (SSH) Productivity** decreased in Fall, Spring, and Summer 2011-12 from the previous year.
- **Performance Metric** decreased in Fall (5.2), Spring (4.3), and Summer (7.6) from the previous year.
- The course success rate reached a four-year high (89%) in 2011-12.
- The number of **program graduates** in the Architectural Design and Construction Technology program (ARCH-AS) reached a four-year high in 2011-12 (17). The Drafting and Design Technology program (DRAFT-AS) remained the same as the previous year (4); whereas, the number of graduates in the Building Arts Certificate program (BLDARTS Certificates) decreased from the previous year (6).
- **Fulltime Faculty** taught 37.3% of the ECHs in 2011-12 as compared to 46.2% in 2010-11. Adjunct Faculty taught 46.8% of the ECHs in 2011-12 as compared to 48.2% in 2010-11.
- The highest semester for Adjunct ECHs was in Spring 2008-09 in which adjunct faculty taught 63.9% of the program’s course load. The three-semester average
for adjuncts (46.8%) in 2011-12 is not consistent with the College’s general 65/35 Fulltime/Adjunct Faculty Ratio guideline.

Program Profitability

- The Relative Profitability Index (RPI-T) for the Building Arts program increased in 2011-12 (0.8) from the previous year (0.5).

Program Improvements

- There were no Capital Expenditures (Fund 10 and 16) for the Building Arts program (Org: 11260101) during the past three years.

Academic Outcomes

- The 2009-10 Academic Program Assessment Report indicated that the desired results were met for all six Program Learning Objectives (PLOs) assessed.
- The 2009-10 Academic Program Assessment Follow-up Report was completed in June 2011. One of the action items was successfully completed and the results published in the 2009-10 follow-up report. The next assessment report is scheduled to be completed during the 2012-2013 academic year.

Stakeholder Perceptions

- All the individual average content area scores for the Student Survey of Instruction (SSI) were above the traditional threshold (an average of 5.0) used by the College for evaluating seven-point satisfaction scales. These results suggest general overall satisfaction with the courses within the Building Arts program; specifically, as they relate to faculty engagement, preparation and organization, and course instruction.
- A Building Arts advisory committee meeting was held on May 2, 2013. The meeting consisted of a discussion regarding course enrollment, action items, Architectural and Building Arts, the U.S. Department of Labor (DOL), Equipment Requests and approvals, and the NSF Grant.
- Thirty Recent Alumni surveys were provided to the 2010-11 graduates of the Building Arts program. Twenty-seven percent of the graduates responded to the survey (8 of the 30). Not all respondents answer every survey question; therefore, the percentages listed below represent the responses to each survey question in relation to the total number of responses received for each question.

Notable results include:

- 100.0% of recent graduate survey respondents, who were employed, were employed full-time.
- 100.0% of recent graduate survey respondents had a current position related to their studies.
- 37.5% of recent graduate survey respondents indicated their main goal in completing a degree or certificate at SPC was to “Meet certification/training needs,” 25.0% “Earn more money,” 12.5% “Change career fields,” 12.5% “Get a promotion,” while the remaining 12.5% selected “Continue my education.”
- 50.0% of recent graduate survey respondents indicated that their SPC degree allowed them to “Continue my education,” 37.5% “Other,” 25.0% “Meet
certification/training needs,” 25.0% “Earn more money” 12.5% “Change career fields,” and 12.5% “Get a promotion.” [Note: The total may exceed 100% as this question allows multiple responses.]

- 42.9% of recent graduate survey respondents indicated that SPC did “Exceptionally well” in helping them meet their goal, while 57.1% said “Adequately.”
- 50.0% of recent graduate survey respondents indicated that they earned between $10.00 and $14.99 per hour ($21,000 - $30,999 annually), 25.0% indicated earnings of $25.00 or more per hour ($52,000 or more annually). The remaining 25.0% earned between $15.00 and $19.99 per hour ($31,000 - $41,999 annually).
- 37.5% of recent graduate survey respondents indicated they are continuing their education.
- 66.7% of recent graduate survey respondents would recommend SPC’s Building Arts program to another.

- One employer survey was sent out based on permissions provided by recent graduates in the 2010-11 recent alumni survey. Since a single response cannot accurately represent the entire program, employer survey results about college preparation will not be reported.

**Occupation Profile**

- One occupation description, First-Line Supervisors of construction trades and extraction workers, was located in the Bureau of Labor Statistics for the Building Arts program.
- The 2011 median yearly income for First-Line Supervisors of construction trades and extraction workers was $59,200 in the United States and $54,300 in Florida.
- Employment trend information for First-Line Supervisors of construction trades and extraction workers, showed an average annual increase (24%) in employment for the profession over the next 7 years for the country.
- The major employer of the Building Arts graduates is Walter Britt masonry and Sons.
- Total Placement in the Architectural Design and Construction Technology increased in 2009-10 (100%) from 2008-09 (91%). For Drafting and Design Technology, total placement increased from 75% in 2008-09 to 100% in 2009-10.

**State Graduates Outcomes**

- State Graduates data indicated that thirty-nine students completed a state Architectural Design and Construction Technology program in 2009-10, of those twenty-three had some matching state data and were employed. Seventy-four percent (74%) of those state graduates were employed at least a full quarter. SPC’s graduates exceeded this rate with 100% of the graduates employed at least a full quarter. State Graduates data also indicated that one-hundred and seven students completed a state Drafting and Design Technology program in 2009-10, of those seventy-eight had some matching state data and were employed. Seventy-eight percent (78%) of those state graduates were employed at least a full quarter. SPC’s graduates exceeded this rate with 100% of the graduates employed at least a full quarter.
Program Administrator’s Perspective: Issues, Trends, and Recent Successes

The Building Arts Department continues to provide a quality education in Architecture and Building Construction owing to Associate in Arts programs in Architecture and Building Construction, a Certificate Program in Building Construction, and Associate in Science Degree in Architectural Design and Construction Technology. Additionally, the Building Arts Department works with SPC’s Corporate Training Center to develop, coordinate, and teach professional continuing education courses for the Construction Industry Licensing Board, and the Concrete Sawing and Drilling Association.

The AS degree in the Architectural Design and Construction program utilized the results of the CO-OP and Practicum courses, to evaluate the students through an End of Program Assessment. The scores in this assessment indicated an overall satisfaction with the program. In addition, students enrolled in the BCN 1940, Construction Practicum, were permitted access to the construction site of the new Ethics and Social Science Building, providing an invaluable experience. Students enrolled in this AS degree have the option to complete the Practicum or one of two CO-OP courses, and as a result of this opportunity, more students chose the Construction Practicum. Students enrolled in the AS degree in Drafting and Design complete more AutoCAD related courses, and thus enroll in the EET 2949, CO-OP course offered in the Engineering Technology program. These students are evaluated through an End of Program assessment conducted within the Engineering Technology program. This concern will be addressed as an action item for this report.

Students enrolled in either Building Arts or Engineering Technology work collaboratively on projects in both academic areas, and share the advanced technology available in the Collaborative Center for Emerging Technologies (CCET). Building Arts graduates continue to obtain jobs, and SPC ranks highest in the state for placement in both Architectural Design and Construction and Drafting and Design.

The enrollment in Building Arts is still an area of concern due to this down cycle in construction, although a number of encumbered workers are presently enrolled in courses both to upgrade their skills and for a recertification. Unfortunately, these students are not working toward the certificates or degrees yet. There has been a consistent rise in the number of graduates of the Architectural Design and Construction program, while the Drafting and Design program remains constant.

One other concern is the lack of SSI results for the fall 2012 semester, and it will be addressed as an action item in this report.

Recommendations/Action Plan

Program Recommendations and action plans are compiled by the Dean, and are located at the end of the document.
SPC Mission Statement
The mission of St. Petersburg College is to promote student success and enrich our communities through education, career development and self-discovery. St. Petersburg College fulfills its mission led by an outstanding, diverse faculty and staff and enhanced by advanced technologies, distance learning, international education opportunities, innovative teaching techniques, comprehensive library and other information resources, continuous institutional self-evaluation, a climate for student success, and an enduring commitment to excellence.

Introduction
In a holistic approach, the effectiveness of any educational institution is the aggregate value of the education it provides to the community it serves. For over eighty-five years, St. Petersburg College (SPC) has provided a wide range of educational opportunities and services to a demographically diverse student body producing tens of thousands of alumni who have been on the forefront of building this county, state, and beyond. This is due, in large part, to the College’s institutional effectiveness.

Institutional Effectiveness
Institutional Effectiveness is the integrated, systematic, explicit, and documented process of measuring performance against the SPC mission for the purposes of continuous improvement of academic programs, administrative services, and educational support services offered by the College.

Operationally, the institutional effectiveness process ensures that the stated purposes of the College are accomplished. In other words did the institution successfully execute its mission, goals, and objectives? At SPC, the Offices of Planning, Budgeting, and Research work with all departments and units to establish measurable statements of intent that are used to analyze effectiveness and to guide continuous quality improvement efforts. Each of St. Petersburg College’s units is required to participate in the institutional effectiveness process.

The bottom-line from SPC’s institutional effectiveness process is improvement. Once SPC has identified what it is going to do then it acts through the process of teaching, researching, and managing to accomplish
its desired outcomes. The level of success of SPC’s actions is then evaluated. A straightforward assessment process requires a realistic consideration of the intended outcomes that the institution has set and a frank evaluation of the evidence that the institution is achieving that intent.

There is no single right or best way to measure success, improvement, or quality. Nevertheless, objectives must be established, data related to those objectives must be collected and analyzed, and the results of those findings must be used to improve the institution in the future. The educational assessment is a critical component of St. Petersburg College’s institutional effectiveness process.

**Educational Assessment**

Educational programs use a variety of assessment methods to improve their effectiveness. Assessment and evaluation measures are used at various levels throughout the institution to provide provosts, deans, program managers, and faculty vital information on how successful our efforts have been.

While the focus of a particular educational assessment area may change, the assessment strategies remain consistent and integrated to the fullest extent possible. The focus of Associate in Arts degrees is students continuing on to four-year degree programs. The Associate in Applied Science and Associate in Science programs are targeted towards students seeking employable skills, which does not require but may include continuing on to a four-year program. The General Education based assessments focus on the general learning outcomes from all degree programs, while Program Review looks at the viability of the specific programs.

The individual reports unique by their individual nature are nevertheless written to address how the assessments and their associated action plans have improved learning in their program. The College has developed an Educational Assessment Website (https://it.spcollege.edu/edoutcomes/) to serve as repository for all SPC’s educational outcomes reports and to systematically manage our assessment efforts.
Program Review Process

The program review process at St. Petersburg College is a collaborative effort to continuously measure and improve the quality of educational services provided to the community. The procedures described below go far beyond the “periodic review of existing programs” required by the Florida College System; and exceeds the necessary guidelines within the Southern Association of Community Colleges and Schools (SACS) review procedures.

State guidelines require institutions to conduct program reviews every seven years as mandated in chapter 1001.03(13) of the Florida Statutes, the State Board of Education (formerly the Florida Board of Education) must provide for the review of all academic programs.

(13) …CYCLIC REVIEW OF POSTSECONDARY ACADEMIC PROGRAMS.--The State Board of Education shall provide for the cyclic review of all academic programs in Florida College System institutions at least every 7 years. Program reviews shall document how individual academic programs are achieving stated student learning and program objectives within the context of the institution’s mission. The results of the program reviews shall inform strategic planning, program development, and budgeting decisions at the institutional level.

In addition, Rule 6A-14.060 (5) states that each community college shall:

(5) …Develop a comprehensive, long-range program plan, including program and service priorities. Statements of expected outcomes shall be published, and facilities shall be used efficiently to achieve such outcomes. Periodic evaluations of programs and services shall use placement and follow-up data, shall determine whether expected outcomes are achieved, and shall be the basis for necessary improvements.

In 2007, SPC reduced the recommended program review timeline to three years to coincide with the long-standing three-year academic program assessment cycle, producing a more coherent and integrated review
process. Figure 1 represents the relationship between program assessment and program reviewing during the three-year assessment cycle.

![Figure 1: Three-Year Academic Program Assessment Cycle](image)

**Program Description**

The Building Arts program consists of two academic tracks, Architectural Design and Construction Technology as well as Drafting and Design Technology. The Architectural Design and Construction Technology track blends practical skills with management training to prepare students for a career as a construction manager, planner or contractor, job superintendent or foreman, or construction or building inspector. The Drafting and Design Technology track combines technical skills with management and business training to prepare students to work as a drafter in the offices of architects, general contractors, civil and mechanical firms, municipal government and consulting firms.
Degrees Offered
Associate in Science Degrees in Architectural Design and Construction Technology and Drafting and Design Technology are offered at SPC. Additionally, certificates in Building Construction Technology and Drafting are offered.

For a complete listing of all courses within the Building Arts program, please see Appendix A.

Accreditation
No accreditation information is on file for the Building Arts Program.

Program Learning Outcomes
1. The student will demonstrate an understanding of reading and interpreting construction drawings and specifications.
2. The student will demonstrate an understanding of the building construction industry by evaluating, analyzing, and choosing appropriate building materials, and describing their proper methods of installation.
3. The student will demonstrate an understanding of the building construction industry by interpreting and applying building code requirements to general and specific conditions.
4. The student will demonstrate an understanding of the building construction industry by estimating quantities of materials and labor, and scheduling sequences of construction to assure on time/on budget project delivery.
5. The student will demonstrate an understanding of the building construction industry by discussing acceptable industry practices including construction law, project administration, documentation, contracts, and project supervision.
6. The student will demonstrate an understanding of the building construction industry by discussing the history, culture, construction, materials and methods that are characteristic to specific periods of architectural history.
Program Performance

Actual Course Enrollment

Actual Course Enrollment is calculated using the sum of actual student enrollment for the courses within the program (Academic Organization Code). This number is a duplicated headcount of students enrolled in the program’s core courses, and does not reflect the actual number of students enrolled in the A.S. program or its associated certificates (if applicable). Actual Course Enrollment decreased in Fall (243), Spring (222), and Summer (109) 2011-12 from the previous year, as shown in Figure 2.

Figure 2: Actual Course Enrollment

Source: PeopleSoft Student Administration System: Course Management Summary Report (S_CMSUMM)
Unduplicated Headcount

Unduplicated Headcount is the total number of unduplicated students with a program plan within the area of study (e.g., A.S. or certificate) that are currently enrolled in a course under that Academic Org. during the term of interest. This excludes 1) students in a different program plan or 2) students in the right program plan who are not taking courses within that Academic Org. for the term of interest. In 2011-12, unduplicated headcount increased in Fall (52), but decreased in Spring (48) and Summer (28) from the previous year, as shown in Figure 3.

Figure 3: Unduplicated Headcount

Source: PeopleSoft Student Administration System
SSH Enrollment

SSH Enrollment is defined as the total number of student semester hours (i.e., Actual SSH). SSH Enrollment decreased in Fall (631), Spring (611), and Summer (168) 2011-12 from the previous year, as shown in Figure 4.

Figure 4: SSH Enrollment

Source: PeopleSoft Student Administration System: Course Management Summary Report (S_CMSUMM)
**SSH Productivity**

Student Semester Hour (SSH) Productivity is calculated by dividing actual SSH by the budgeted SSH. SSH productivity decreased during Fall, Spring, and Summer 2011-12 from the previous year, as shown in Figure 5.

![SSH Productivity Chart](chart.png)

**Figure 5: SSH Productivity**

Source: PeopleSoft Student Administration System: Course Management Summary Report (S_CMSUMM)

Note: SSH Productivity data are displayed using two decimal places due to the proximity of the values.
Performance Metric

Performance Metric is calculated by dividing actual enrollment by the Equated Credit Hour (ECH), [actual workload]. The Performance Metric decreased in Fall (5.2), Spring (4.3), and Summer (7.6) from the previous year, as shown in Figure 6.

Figure 6: Performance Metric

Source: PeopleSoft Student Administration System: Course Management Summary Report (S_CMSUMM)
Grade Distributions

To provide a reference for program performance at the classroom level, grade distributions are provided. Table 1 includes the percentage of students receiving an A, B, C, D, or F in the program core courses. Some course data, such as dual credit courses generally do not end at the same time as the regular campus courses and may be omitted. In addition, the number of enrollments is a duplicated headcount where students are counted for each class registered, however, only A, B, C, D, and F grades are included in the calculations.

Table 1
Program Core Course Grade Distributions

<table>
<thead>
<tr>
<th>Semester</th>
<th>Grade Distributions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Spring 2011</td>
<td>55.7%</td>
</tr>
<tr>
<td>Spring 2012</td>
<td>50.9%</td>
</tr>
<tr>
<td>Fall 2011</td>
<td>42.4%</td>
</tr>
<tr>
<td>Fall 2012</td>
<td>58.3%</td>
</tr>
</tbody>
</table>

Source: SPC Business Intelligence, Grade Distribution by Academic Org.
Date Extracted 04/23/2013
Figure 7 provides a visual representation of the grade distributions for those students receiving a grade of A, B, or C.

*Figure 7: ABC Grade Distributions*

Source: SPC Business Intelligence, Grade Distribution by Academic Org.

Date Extracted 04/23/2013
**Course Success**

The Course Success Rate is defined as the percent of students successfully completing the course with a grade of A, B, C, divided by the total number of students in the course. The course success rate for the program reached a four-year high in 2011-12 (89%), as shown in Figure 8.

![Course Success Rate Chart](image)

*Figure 8: Course Success*

Source: SPC Business Intelligence, Success Rate by Academic Org.

Date Extracted 07/27/2012
Program Graduates
The number of AS graduates in the Architectural Design and Construction Technology program (ARCH-AS) reached a four-year high in 2011-12 (17). The Drafting and Design Technology program (DRAFT-AS) remained the same as the previous year (4); whereas, the number of graduates in the Building Arts Certificate program (BLDARTS Certificates) decreased from the previous year (6), as shown in Figure 9.

Figure 9: Program Graduates
Source: 2012-13 SPC Factbook, Table 31
### Fulltime/Adjunct Faculty Ratio

Table 2 displays the number and percentage of Building Arts program equated credit hours (ECHs) taught by the individual faculty classifications. As shown, Fulltime Faculty taught 37.3% of the ECHs in 2011-12 as compared to 46.2% in 2010-11. Adjunct Faculty taught 46.8% of the ECHs in 2011-12 as compared to 48.2% in 2010-11.

<table>
<thead>
<tr>
<th></th>
<th>Fulltime Faculty</th>
<th>Percent of Load Faculty</th>
<th>Adjunct Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of ECHs</td>
<td>% of Classes Taught</td>
<td>Number of ECHs</td>
</tr>
<tr>
<td>Fall 2008-2009</td>
<td>15.9</td>
<td>41.4%</td>
<td>6.0</td>
</tr>
<tr>
<td>Spring 2008-2009</td>
<td>15.0</td>
<td>36.1%</td>
<td>0.0</td>
</tr>
<tr>
<td>Summer 2008-2009</td>
<td>7.2</td>
<td>54.5%</td>
<td>0.0</td>
</tr>
<tr>
<td>2008-2009 Total</td>
<td>38.1</td>
<td>40.9%</td>
<td>6.0</td>
</tr>
<tr>
<td>Fall 2009-2010</td>
<td>21.4</td>
<td>45.6%</td>
<td>6.0</td>
</tr>
<tr>
<td>Spring 2009-2010</td>
<td>18.0</td>
<td>48.8%</td>
<td>6.0</td>
</tr>
<tr>
<td>Summer 2009-2010</td>
<td>7.3</td>
<td>36.9%</td>
<td>0.0</td>
</tr>
<tr>
<td>2009-2010 Total</td>
<td>46.7</td>
<td>45.1%</td>
<td>12.0</td>
</tr>
<tr>
<td>Fall 2010-2011</td>
<td>23.2</td>
<td>50.6%</td>
<td>0.0</td>
</tr>
<tr>
<td>Spring 2010-2011</td>
<td>16.0</td>
<td>36.3%</td>
<td>6.0</td>
</tr>
<tr>
<td>Summer 2010-2011</td>
<td>9.8</td>
<td>59.9%</td>
<td>0.0</td>
</tr>
<tr>
<td>2010-2011 Total</td>
<td>49.0</td>
<td>46.2%</td>
<td>6.0</td>
</tr>
<tr>
<td>Fall 2011-2012</td>
<td>18.5</td>
<td>39.2%</td>
<td>6.0</td>
</tr>
<tr>
<td>Spring 2011-2012</td>
<td>15.0</td>
<td>28.9%</td>
<td>12.0</td>
</tr>
<tr>
<td>Summer 2011-2012</td>
<td>8.8</td>
<td>61.5%</td>
<td>0.0</td>
</tr>
<tr>
<td>2011-2012 Total</td>
<td>42.3</td>
<td>37.3%</td>
<td>18.0</td>
</tr>
</tbody>
</table>

Source: PeopleSoft Student Administration System: Faculty/Adjunct Ratio Report (S_FACRAT)
The Fulltime/Adjunct Faculty Ratio is calculated by dividing a program’s adjunct’s ECHs by the sum of the Adjunct’s, Percent of Load’s, and Fulltime Faculty’s ECHs. Figure 10 displays the Fulltime/Adjunct Faculty Ratio information for the last four academic years. The highest semester for Adjunct ECHs was Spring 2008-09 in which adjunct faculty taught 63.9% of the program’s course load, as shown in Table 2. The three-semester average for adjuncts (46.8%) in 2011-12 is not consistent with the College’s general 65/35 Fulltime/Adjunct Faculty Ratio guideline.

Figure 10: Full-time/Adjunct Faculty Ratio

Source: PeopleSoft Student Administration System: Faculty/Adjunct Ratio Report (S_FACRAT)
Program Profitability

Relative Profitability Index (RPI-T)
Relative Profitability Index (RPI-T) is a measure of program profitability. It is calculated by dividing a program’s income by the sum of its personnel expenses and current expenses. Only Fund 10 financials are used in the calculation of RPI-T; specifically, program revenues (GL 400000), personnel expenses (GL 500000), and current expenses (GL 600000).

Program revenues (GL 400000) can include (1) student application fees and tuition, (2) out of state fees, and (3) gifts from alumni and charitable organizations.

Personnel expenses (GL 500000) can include (1) personnel salary expenses for program management, and instructional staff, (2) personnel salary expenses for OPS and student assistants, and (3) personnel benefits. Personnel assigned to multiple programs may have partial personnel expenses assigned to an individual program.

Current expenses (GL 600000) can include operating expenses for (1) travel, (2) goods and services, and (3) materials and supplies. Current expenses can also include scholarship and fee waivers.
The RPI-T for the Building Arts program increased in 2011-12 (0.8) from the previous year (0.5), as shown in figure 11.

![Fiscal Summary](image)

**Figure 11: Fiscal Summary**

Source: PeopleSoft Financial Production System: Summary of Monthly Organization Budget & Actuals Status Report (ORGBUDA1) from End of Fiscal Year

Note: RPI data are displayed using two decimal places due to the proximity of the values.
Program Improvements

Capital Expenditures

There were no Capital Expenditures (Fund 10 and 16) for the Building Arts program (Org: 11260101) during the past three years, as shown in Table 3.

Table 3
Building Arts Program Capital Expenditures

<table>
<thead>
<tr>
<th>Year</th>
<th>Capital Outlay</th>
<th>Account</th>
<th>Purchase Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>$0</td>
<td>700000</td>
<td></td>
</tr>
<tr>
<td>2010-11</td>
<td>$0</td>
<td>700000</td>
<td></td>
</tr>
<tr>
<td>2011-12</td>
<td>$0</td>
<td>700000</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: PeopleSoft Financial Production System: Summary of Monthly Organization Budget & Actuals Status Report (ORGBUDA1) from End of Fiscal Year
Academic Outcomes

As part of SPC quality improvement efforts, academic assessments are conducted on each AAS/AS/BS/BAS program every three years to evaluate the quality of the program’s educational outcomes. The Building Arts program was evaluated through an Academic Program Assessment Report (APAR) in 2009-10.

Each of the program’s six Program Learning Outcomes (PLOs) was evaluated during the 2009-10 assessment. Each of the six PLOs is listed below:

1. The student will demonstrate an understanding of reading and interpreting construction drawings and specifications.
2. The student will demonstrate an understanding of the building construction industry by evaluating, analyzing, and choosing appropriate building materials, and describing their proper methods of installation.
3. The student will demonstrate an understanding of the building construction industry by interpreting and applying building code requirements to general and specific conditions.
4. The student will demonstrate an understanding of the building construction industry by estimating quantities of materials and labor, and scheduling sequences of construction to assure on time/on budget project delivery.
5. The student will demonstrate an understanding of the building construction industry by discussing acceptable industry practices including construction law, project administration, documentation, contracts, and project supervision.
6. The student will demonstrate an understanding of the building construction industry by discussing the history, culture, construction, materials and methods that are characteristic to specific periods of architectural history.
Means of Assessment
The purpose of the End of Program assessment is to make summative interpretations for program improvement.

The Building Arts program used the results of the “End of Co-Operative Education Review” to evaluate the students. The criteria for success stated that SPC students should rate a score of 4.0 or greater on each category of the evaluation.

Data were collected during 2007, 2008, 2009, and 2010. Table 4 shows the number of graduates in the architecture and drafting programs who were enrolled in the co-op or practicum and subsequently included in the assessment. The data findings for each PLO are displayed in Table 5. The mean score was 4.0 or higher, and thus the criteria for success was met.

Table 4
Building Arts Assessment Results

<table>
<thead>
<tr>
<th>Graduates</th>
<th>ARCH</th>
<th>DRAFT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CO-OP</td>
<td>Practicum</td>
</tr>
<tr>
<td>Fall 2007</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Spring 2008</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Summer 2008</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fall 2008</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Spring 2009</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Summer 2009</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Fall 2009</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Spring 2010</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Academic Outcomes from 2009-10 Academic Program Assessment Report (APAR)
### Table 5
Building Arts Assessment Results

<table>
<thead>
<tr>
<th>PLOs</th>
<th>Number of Students</th>
<th>Mean Score</th>
<th>Standard</th>
<th>At or Above Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLO1 1.1</td>
<td>6</td>
<td>4.7</td>
<td>4.0</td>
<td>100.0%</td>
</tr>
<tr>
<td>PLO1 1.2</td>
<td>6</td>
<td>5.0</td>
<td>4.0</td>
<td>100.0%</td>
</tr>
<tr>
<td>PLO2 2.1</td>
<td>5</td>
<td>4.6</td>
<td>4.0</td>
<td>100.0%</td>
</tr>
<tr>
<td>PLO3 3.1</td>
<td>6</td>
<td>4.8</td>
<td>4.0</td>
<td>100.0%</td>
</tr>
<tr>
<td>PLO3 3.2</td>
<td>5</td>
<td>4.6</td>
<td>4.0</td>
<td>100.0%</td>
</tr>
<tr>
<td>PLO4 4.1</td>
<td>5</td>
<td>4.8</td>
<td>4.0</td>
<td>100.0%</td>
</tr>
<tr>
<td>PLO5 5.1</td>
<td>6</td>
<td>5.0</td>
<td>4.0</td>
<td>100.0%</td>
</tr>
<tr>
<td>PLO5 5.2</td>
<td>6</td>
<td>5.0</td>
<td>4.0</td>
<td>100.0%</td>
</tr>
<tr>
<td>PLO5 5.3</td>
<td>5</td>
<td>4.2</td>
<td>4.0</td>
<td>100.0%</td>
</tr>
<tr>
<td>PLO6 6.1</td>
<td>6</td>
<td>4.0</td>
<td>4.0</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: Academic Outcomes from 2009-10 Academic Program Assessment Report (APAR)

The 2009-10 follow-up report was completed in June 2011. One of the action items was successfully completed, and the results published in the 2009-10 follow-up report. The next assessment report is scheduled to be completed during the 2012-13 academic year.
Stakeholder Perceptions

Student Survey of Instruction (SSI)
Each semester, St. Petersburg College (SPC) administers the Student Survey of Instruction. Students are asked to provide feedback on the quality of their instruction using a 7-point scale where 7 indicates the highest rating and 1 indicates the lowest rating.

The purpose of the SSI survey is to acquire information on student perception of the quality of courses, faculty, and instruction, and to provide feedback information for improvement.

Beginning in Fall 2008, all SSI forms (except Clinical B) have been administered electronically using an online format. During 2009-10, the SSI items were reviewed and revised by a committee composed of faculty and administrators. As a result of the revision process, the lecture, non-lecture, and eCampus forms were consolidated into one form, independent of modality, which has been administered online since Spring 2010.

As part of the instrument validation process, the results from the SSI over the last few years were assessed for reliability and validity. The results of this assessment suggested three underlying factors.

The three factors are faculty engagement, preparation and organization, and course instruction. The survey questions are grouped into these categories as defined below:

- **Faculty Engagement** - focuses on how successful the instructor was in encouraging student performance, the instructor’s level of enthusiasm for the subject and respect for students, how well the instructor applied the stated grading policies including providing students appropriate information to determine their grades, and the instructor’s responsiveness to student questions outside of the classroom.

- **Preparation and Organization** - focuses on the instructor’s overall preparation for the course, the instructor’s ability to start and end class on time, the amount of time spent on course-related activities by
the instructor, and the even assignment and appropriateness of course material throughout the term.

- **Course Instruction** - focuses on the instructor’s clarity of instruction, how well the course objectives were defined by the instructor, and how well the instructor met student expectations.

**SSI Results** The SSI survey is electronically distributed to all students enrolled in traditional classroom sections, lab courses and self-paced or directed individual study, and online courses at the College. The average scores are all well above the traditional threshold (an average of 5.0) used by the College for evaluating seven-point satisfaction scales during both semesters. The average survey results by semester and content area are shown in Figure 12. The SSI survey administration is optional during Summer semester, thus only Fall and Spring results are presented in this report. Note that data are not available for fall 2012, as no SSIs were submitted by students in Building Arts for that term.

![Figure 12: SSI Results](source)

Source: Student Survey of Instruction Administration Site

Building Arts
2012-13 Comprehensive Academic Program Review
Institutional Research and Effectiveness

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Summary
All the individual average content area scores were above the traditional threshold (an average of 5.0) used by the College for evaluating seven-point satisfaction scales. These results suggest general overall satisfaction with the courses within the Building Arts program; specifically, as they relate to faculty engagement, preparation and organization, and course instruction.
Advisory Committee

Community input and participation is an important component of the educational process at the College. The advisory committees are an example of community input. Advisory committees meet a minimum of twice annually with additional meetings as needed for good program coordination.

Advisory committee members are appointed by the College President to serve a one-year term of office and must have a demonstrated competency in the program specialty area or an understanding of the program and of the community at large. An exception to the above may be a lay person directly involved in a related program field such as counseling, public relations, or administration of a business or industry.

Specific Functions of Advisory Committees are:

1. Assessing how the program meets the current occupational needs of employers.
2. Reviewing and making recommendations on the program curriculum and equipment.
3. Providing input to help prepare students for work in their chosen field.
4. Assisting in recruiting, providing internships, and placing qualified graduates in appropriate jobs.
5. Expanding and enhancing St. Petersburg College’s reputation in the community by fostering positive community relationships.
6. Approving all program equipment purchases in excess of $999.99.
Recent Meeting Summary
A Building Arts advisory committee meeting was held on May 2, 2013. The meeting consisted of a discussion regarding course enrollment, action items, Architectural and Building Arts, the U.S. Department of Labor (DOL), Equipment Requests and approvals, and the NSF Grant.

Course Enrollment
Brad Jenkins reported that student enrollment increased from 9.9% in Engineering Technology and decreased 11.7% in Building Arts between Fall 2011 and Fall 2012 (as compared to Fall 2011). During Spring 2013, enrollment increased 12.1% in Engineering Technology and 2.8% in Building Arts (as compared to Spring 2012).

Action Items
The committee received an update in the action items from the September 2012 meeting concerning the Collaborative Center of Emerging Technologies.

Architectural and Building Arts Updates
Bob Hudson reported that of the 7 Architectural AA degree transfer students that applied to the USF Masters in the Architectural program, 5 were accepted. Furthermore, of the 30 USF Masters in Architecture graduates, 5 were from our SPC program.

U.S. Department of Labor (DOL)
The college participated in two proposals with the U.S. Department of Labor (DOL) Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant: the Florida TRADE grant and the Biosciences Credentials, Medical Devices.

SPC is a partner with Ivy Tech Community College and Salt Lake City Community College for the Medical Devices Hub. The major goal is to develop an A.S. degree in Medical Manufacturing with a number of specializations and college certificates. SPC will be hosting the fall meeting of the Medical Devices Hub September 17-18, 2013.

Equipment Requests and Approvals
Brad presented two equipment requests for approval: a Pneumatic equipment package to be used in automation and robotics and a
Reverse Engineering Arm to provide the reverse engineering for our manufacturing and rapid prototyping program. The committee approved both requests.

**NSF Grants**

Brad provided an update on the DeafTec NSF grant of the Rochester Institute of Technology (RIT) National Technical Institute for the Deaf (NTID). The training for faculty and counselors is expected to begin this summer and continue in the fall.

The FLATE updates this year included the new remodeled FLATE website with its updated industry page. FLATE is also continuing to work with the Florida Department of Education (DOE) to review and update the Engineering Technology curriculum frameworks concerning the college certificates for this summer. There are now 14 state colleges that have adopted the A.S. degree in Engineering Technology.

The complete committee minutes along with the minutes from previous meetings are located in Appendices B, C, and D.
Recent Alumni Survey Information
Thirty Alumni Surveys were provided to the 2010-11 graduates of the Building Arts program. Responses were received from four A.S. graduates and four Certificate completers.

Twenty-seven percent of graduates surveyed responded to the survey (8 of 30). After receiving permission from the respondents to contact their employers, one employer survey was sent out. Not all respondents answer every survey question; therefore, the percentages listed below represent the responses to each survey question in relation to the total number of responses received for each question.

Notable results include:
- 100.0% of recent graduate survey respondents, who were employed, were employed full-time.
- 100.0% of recent graduate survey respondents had a current position related to their studies.
- 37.5% of recent graduate survey respondents indicated their main goal in completing a degree or certificate at SPC was to “Meet certification/training needs,” 25.0% “Earn more money,” 12.5% “Change career fields,” 12.5% “Get a promotion,” while the remaining 12.5% selected “Continue my education.”
- 50.0% of recent graduate survey respondents indicated that their SPC degree allowed them to “Continue my education,” 37.5% “Other,” 25.0% “Meet certification/training needs,” 25.0% “Earn more money” 12.5% “Change career fields,” and 12.5% “Get a promotion.” [Note: The total may exceed 100% as this question allows multiple responses.]
- 42.9% of recent graduate survey respondents indicated that SPC did “Exceptionally well” in helping them meet their goal, while 57.1% said “Adequately.”
- 50.0% of recent graduate survey respondents indicated that they earned between $10.00 and $14.99 per hour ($21,000 - $30,999 annually), and 25.0% indicated earnings of $25.00 or more per hour ($52,000 or more annually). The remaining 25.0% earned between $15.00 and $19.99 per hour ($31,000 - $41,999 annually).
- 37.5% of recent graduate survey respondents indicated they are continuing their education.
• 66.7% of recent graduate survey respondents would recommend SPC’s Building Arts program to another.
• An evaluation of Building Arts graduates’ general education outcomes is displayed in Table 6. Graduates indicated high levels of satisfaction with their college preparation in the area of general education outcomes. Twenty-two outcomes received mean scores of 4.0 or higher, while the remaining three outcomes received mean scores between 3.4 and 3.9.
### Table 6

**College Preparation Ratings for Recent Building Arts Program Graduates**

<table>
<thead>
<tr>
<th>General Education Outcomes (Five point rating scale with five being the highest)</th>
<th>N</th>
<th>Item Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communicating clearly and effectively with others through:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking</td>
<td>8</td>
<td>4.0</td>
</tr>
<tr>
<td>Listening</td>
<td>8</td>
<td>4.4</td>
</tr>
<tr>
<td>Reading</td>
<td>8</td>
<td>4.0</td>
</tr>
<tr>
<td>Writing</td>
<td>8</td>
<td>4.1</td>
</tr>
<tr>
<td><strong>Your use of mathematical and computational skills:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comfort with mathematical calculations</td>
<td>8</td>
<td>4.3</td>
</tr>
<tr>
<td>Using computational skills appropriately</td>
<td>8</td>
<td>4.3</td>
</tr>
<tr>
<td>Accurately interpreting mathematical data</td>
<td>8</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Using the following forms of technology:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td>8</td>
<td>4.4</td>
</tr>
<tr>
<td>Word Processing</td>
<td>8</td>
<td>4.3</td>
</tr>
<tr>
<td>Spreadsheets</td>
<td>8</td>
<td>3.4</td>
</tr>
<tr>
<td>Databases</td>
<td>8</td>
<td>3.9</td>
</tr>
<tr>
<td>Internet Research</td>
<td>8</td>
<td>4.3</td>
</tr>
<tr>
<td><strong>Thinking logically and critically to solve problems:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gathering and assessing relevant information</td>
<td>8</td>
<td>4.5</td>
</tr>
<tr>
<td>Inquiring about and interpreting information</td>
<td>8</td>
<td>4.5</td>
</tr>
<tr>
<td>Organizing and evaluating information</td>
<td>8</td>
<td>4.5</td>
</tr>
<tr>
<td>Analyzing and explaining information to others</td>
<td>8</td>
<td>4.4</td>
</tr>
<tr>
<td>Using information to solve problems</td>
<td>8</td>
<td>4.6</td>
</tr>
</tbody>
</table>
### Table 6, continued

College Preparation Ratings for Recent Building Arts Program Graduates

<table>
<thead>
<tr>
<th>General Education Outcomes</th>
<th>Item Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Five point rating scale with five being the highest)</td>
<td>N</td>
</tr>
<tr>
<td>Working effectively with others in a variety of settings:</td>
<td></td>
</tr>
<tr>
<td>Participating as a team player (e.g., group projects)</td>
<td>8</td>
</tr>
<tr>
<td>Working well with individuals from diverse backgrounds</td>
<td>8</td>
</tr>
<tr>
<td>Using ethical courses of action</td>
<td>8</td>
</tr>
<tr>
<td>Demonstrating leadership skills</td>
<td>8</td>
</tr>
<tr>
<td>Appreciating the importance of lifelong learning:</td>
<td></td>
</tr>
<tr>
<td>Showing an interest in career development</td>
<td>8</td>
</tr>
<tr>
<td>Being open to new ideas and challenges</td>
<td>8</td>
</tr>
<tr>
<td>Willingness to take on new responsibilities</td>
<td>8</td>
</tr>
<tr>
<td>Pursuing additional educational opportunities</td>
<td>8</td>
</tr>
</tbody>
</table>

**Employer Survey Information**

One employer survey was sent out to employers based on the permission provided by the recent graduates in the 2010-11 recent alumni survey. Since a single response cannot accurately represent the entire program, employer survey results about college preparation will not be reported.
Occupation Profile

One occupation description was located in the Bureau of Labor Statistics for the Building Arts program. The occupation description title was First-Line Supervisors of construction trades and extraction workers.

Occupation Description

The occupation description for First-Line Supervisors of construction trades and extraction workers 47-1011 used by the Bureau of Labor Statistics is shown below:

Directly supervise and coordinate activities of construction or extraction workers.

US, State, and Area Wage Information

The distribution of 2011 wage information for First-Line Supervisors of construction trades and extraction workers is located in Table 7. The median yearly income for Building Arts was $59,200 in the United States and $54,300 in Florida. The wage information is divided by percentiles for hourly and yearly wages. This information is also separated by location.

Table 7
Wage Information for First-Line Supervisors of construction trades and extraction workers

<table>
<thead>
<tr>
<th>Location</th>
<th>Pay Period</th>
<th>10%</th>
<th>25%</th>
<th>Median</th>
<th>75%</th>
<th>90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>Hourly</td>
<td>$17.72</td>
<td>$22.15</td>
<td>$28.44</td>
<td>$36.29</td>
<td>$45.28</td>
</tr>
<tr>
<td></td>
<td>Yearly</td>
<td>$36,900</td>
<td>$46,100</td>
<td>$59,200</td>
<td>$75,500</td>
<td>$94,200</td>
</tr>
<tr>
<td>Florida</td>
<td>Hourly</td>
<td>$17.25</td>
<td>$20.78</td>
<td>$26.12</td>
<td>$33.23</td>
<td>$41.34</td>
</tr>
<tr>
<td></td>
<td>Yearly</td>
<td>$35,900</td>
<td>$43,200</td>
<td>$54,300</td>
<td>$69,100</td>
<td>$86,000</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics, Occupational Employment Statistics Survey; Florida Agency for Workforce Innovation
National, State, and County Trends

Employment trend information for First-Line Supervisors of construction trades and extraction workers is included in Table 8 and divided by country and state. An average annual increase (24%) in employment for the profession over the next 7 years for the country is shown.

Table 8
State and National Trends

<table>
<thead>
<tr>
<th>United States</th>
<th>Employment</th>
<th>Percent Change</th>
<th>Job Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
<td>2020</td>
<td></td>
</tr>
<tr>
<td>First-Line Supervisors of construction trades and extraction workers</td>
<td>558,500</td>
<td>689,500</td>
<td>+24%</td>
</tr>
<tr>
<td>Florida</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>2018</td>
<td></td>
</tr>
<tr>
<td>First-Line Supervisors of construction trades and extraction workers</td>
<td>62,160</td>
<td>57,310</td>
<td>-8%</td>
</tr>
</tbody>
</table>

1Job Openings refers to the average annual job openings due to growth and net replacement.


Major Employers

Graduates of SPC’s Building Arts program are employed in various areas related to their field. The primary local employer of these graduates is Walter Britt Masonry and Sons, as depicted in Table 9.

Table 9
Major Employers

<table>
<thead>
<tr>
<th>Employers of Building Arts Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walter Britt Masonry and Sons</td>
</tr>
</tbody>
</table>

Source: 2010-11 Alumni Survey and Program Administrator Input
**Total Placement**

Total Placement is the percentage of students who have an acceptable placement after graduation. Acceptable placement includes students who are enlisted in the military, continuing their education, and/or employed in their field within the first year of graduation. Only students with A.S. and A.A.S degrees are used in the calculation. The Total Placement for Architectural Design and Construction Technology increased in 2009-10 (100%) from 2008-09 (91%). For Drafting and Design Technology, Total Placement increased from 75% in 2008-09 to 100% in 2009-10, as shown in Figure 13.

![Total Placement Graph](image)

**Figure 13: Total Placement**

Source: 2012-13 SPC Factbook, Table 38
State Graduates Outcomes

To provide reference information for the employment trend data, program graduate state outcome data are provided for all academic programs included within Building Arts. Building Arts program graduate state outcome data are provided in Tables 10 and 11.

Thirty-nine students completed a state Architectural Design and Construction Technology program in 2009-10, of those twenty-three had some matching state data and were employed. Seventy-four percent (74%) of those state graduates were employed at least a full quarter. SPC’s graduates exceeded this rate with 100% of the graduates employed at least a full quarter as depicted in Table 10.

Table 10
Architectural Design and Construction Technology Program Graduates 2009-10 Outcomes by Florida Community College

<table>
<thead>
<tr>
<th>Florida Community College</th>
<th>Total Completers</th>
<th># Found Employed</th>
<th># Employed for a Full Qtr</th>
<th>% Employed For a Full Qtr</th>
<th>FETPIP Pool</th>
<th># Training Related (Employed, Education, or Military)</th>
<th>Placement Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida State College at Jacksonville</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>67%</td>
<td>2</td>
<td>2</td>
<td>100%</td>
</tr>
<tr>
<td>Indian River State College</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>100%</td>
<td>2</td>
<td>1</td>
<td>50%</td>
</tr>
<tr>
<td>Miami Dade College</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>100%</td>
<td>1</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Seminole State College of Florida</td>
<td>13</td>
<td>9</td>
<td>4</td>
<td>44%</td>
<td>12</td>
<td>11</td>
<td>92%</td>
</tr>
<tr>
<td>St. Johns River State College</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>100%</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Hillsborough Community College</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>100%</td>
<td>6</td>
<td>4</td>
<td>67%</td>
</tr>
</tbody>
</table>
One-hundred and seven students completed a state Drafting and Design Technology program in 2009-10, of those seventy-eight had some matching state data and were employed. Seventy-eight percent (78%) of those state graduates were employed at least a full quarter. SPC’s graduates exceeded this rate with 100% of the graduates employed at least a full quarter as depicted in Table 11.

Table 11
Drafting and Design Technology Program Graduates 2009-10 Outcomes by Florida Community College

<table>
<thead>
<tr>
<th>Florida Community College</th>
<th>Total Completers</th>
<th># Found Employed</th>
<th># Employed for a Full Qtr</th>
<th>% Employed For a Full Qtr</th>
<th>FETPIP Pool</th>
<th># Training Related (Employed, Education, or Military)</th>
<th>Placement Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Petersburg College</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>100%</td>
<td>5</td>
<td>5</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>23</td>
<td>17</td>
<td>74%</td>
<td>29</td>
<td>24</td>
<td>83%</td>
</tr>
</tbody>
</table>

Source: Florida Education and Training Placement Information Program (FETPIP), Community College Vocational Reports (http://www.fldoe.org/fetpip/pdf/0910pdf/fcs0910asc.pdf)
<table>
<thead>
<tr>
<th>Florida Community College</th>
<th>Total Completers</th>
<th># Found Employed</th>
<th># Employed for a Full Qtr</th>
<th>% Employed For a Full Qtr</th>
<th>FETPIP Pool</th>
<th># Training Related (Employed, Education, or Military)</th>
<th>Placement Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida State College at Jacksonville</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>50%</td>
<td>2</td>
<td>1</td>
<td>50%</td>
</tr>
<tr>
<td>Indian River State College</td>
<td>8</td>
<td>7</td>
<td>5</td>
<td>71%</td>
<td>5</td>
<td>3</td>
<td>60%</td>
</tr>
<tr>
<td>Seminole State College of Florida</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>67%</td>
<td>3</td>
<td>2</td>
<td>67%</td>
</tr>
<tr>
<td>Tallahassee Community College</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>50%</td>
<td>2</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Valencia College</td>
<td>11</td>
<td>8</td>
<td>6</td>
<td>75%</td>
<td>8</td>
<td>8</td>
<td>100%</td>
</tr>
<tr>
<td>St. Petersburg College</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>100%</td>
<td>4</td>
<td>4</td>
<td>100%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>107</strong></td>
<td><strong>78</strong></td>
<td><strong>61</strong></td>
<td><strong>78%</strong></td>
<td><strong>84</strong></td>
<td><strong>59</strong></td>
<td><strong>70%</strong></td>
</tr>
</tbody>
</table>

Source: Florida Education and Training Placement Information Program (FETPIP), Community College Vocational Reports (http://www.fldoe.org/fetpip/pdf/0910pdf/fcs0910asc.pdf)
Program Administrator’s Perspective: Issues, Trends, and Recent Successes

The Building Arts Department continues to provide a quality education in Architecture and Building Construction owing to Associate in Arts programs in Architecture and Building Construction, a Certificate Program in Building Construction, and Associate in Science Degree in Architectural Design and Construction Technology. Additionally, the Building Arts Department works with SPC’s Corporate Training Center to develop, coordinate, and teach professional continuing education courses for the Construction Industry Licensing Board, and the Concrete Sawing and Drilling Association.

The AS degree in the Architectural Design and Construction program utilized the results of the CO-OP and Practicum courses, to evaluate the students through an End of Program Assessment. The scores in this assessment indicated an overall satisfaction with the program. In addition, students enrolled in the BCN 1940, Construction Practicum, were permitted access to the construction site of the new Ethics and Social Science Building, providing an invaluable experience. Students enrolled in this AS degree have the option to complete the Practicum or one of two CO-OP courses, and as a result of this opportunity, more students chose the Construction Practicum. Students enrolled in the AS degree in Drafting and Design completed additional AutoCAD related courses, and the EET 2949, CO-OP course offered in the Engineering Technology program. These students were evaluated through an End of Program assessment conducted within the Engineering Technology program rather than the Building Arts program. This concern will be addressed as an action item for this report.

Students enrolled in either Building Arts or Engineering Technology work collaboratively on projects in both academic areas, and share the advanced technology available in the Collaborative Center for Emerging Technologies (CCET).

Building Arts graduates continue to obtain jobs, and SPC ranks highest in the state for placement in both Architectural Design and Construction and Drafting and Design.
The enrollment in Building Arts is still an area of concern due to this down cycle in construction, although a number of encumbered workers are presently enrolled in courses both to upgrade their skills and for a recertification. Unfortunately, these students are not working toward the certificates or degrees yet. There has been a consistent rise in the number of graduates of the Architectural Design and Construction program, while the Drafting and Design program remains constant.

One other concern is the lack of SSI results for the fall 2012 semester, and it will be addressed as an action item.
Program Action Plan

Program: Building Arts

Date Completed: August 2013

Prepared By: Bradley Jenkins

I. Action Plan Items:

<table>
<thead>
<tr>
<th>Action Item</th>
<th>Measure Addressed (Value)</th>
<th>Completion Date</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Students enrolled in the AS degree in Drafting and Design were enrolled and assessed in the EET 2949, CO-OP course offered in the Engineering Technology program. Beginning in 2013-14, students will be advised to enroll in the Drafting and Design CO-OP course associated with the degree.</td>
<td>Actual Course Enrollment</td>
<td>September 2014</td>
<td>Bradley Jenkins</td>
</tr>
<tr>
<td>2 Advertise and market for recruitment of new students and industry support, to increase the enrollment in the Building Arts program, which has been decreasing during the past several years. An expanded email list needs to be developed along with the use of the Outreach Specialists to reach out to the construction industry and architectural firms.</td>
<td>Actual Course Enrollment, Program Graduates</td>
<td>September 2014</td>
<td>Bradley Jenkins</td>
</tr>
<tr>
<td></td>
<td>Action Item</td>
<td>Measure Addressed (Value)</td>
<td>Completion Date</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>3</td>
<td>The SSI survey will be administered in the Building Arts courses beginning with fall 2013.</td>
<td>Course Success Rate</td>
<td>September 2014</td>
</tr>
<tr>
<td>4</td>
<td>Students enrolled in practicum courses will be assessed correctly beginning with fall 2013.</td>
<td>Course Success Rate, Program Graduates</td>
<td>May 2014</td>
</tr>
<tr>
<td>5</td>
<td>Assessment data will be collected each session as required, and reported on the standard three-year cycle.</td>
<td>Course Success Rate, Program Graduates</td>
<td>May 2014</td>
</tr>
</tbody>
</table>
II. Special Resources Needed:

Marketing resources are required to assist with increase reach out to the construction industry and architectural firms in Pinellas County. The Outreach Specialists need to be involved for this action item.

III. Area(s) of Concern/Improvement:

The End of Program assessment for Building Arts students who were being assessed in Engineering Technology will be addressed as an action item for this report.

The enrollment in Building Arts is still an area of concern due to this down cycle in construction, although a number of encumbered workers are presently enrolled in courses both to upgrade their skills and for a recertification.

Students enrolled in either Building Arts or Engineering Technology will continue to work collaboratively on projects in both academic areas, and share the advanced technology available in the Collaborative Center for Emerging Technologies (CCET).

Building Arts graduates continue to obtain jobs, and SPC ranks highest in the state for placement in both Architectural Design and Construction, and Drafting and Design. There has been a consistent rise in the number of graduates of the Architectural Design and Construction program.
Academic Affairs Committee Review

Summary of observations, recommendations, and decisions:

Anne Cooper, Senior Vice President

Date

9/25/13

9/25/13
References

Contact Information

*Please address any questions or comments regarding this evaluation to:*

Sabrina Crawford, M.A.
Executive Director, Institutional Research and Effectiveness
St. Petersburg College, P.O. Box 13489, St. Petersburg, FL 33733
(727) 341-3118
crawford.sabrina@spcollege.edu
Appendix A: Program Overview, 2012

Building Arts

ASSOCIATE IN SCIENCE DEGREE
(ARCH-AS)

http://www.spc.edu/programs/ARCH-AS
Brad Jenkins, Program Director CL (727) 341-4178

A balance of practical skills and management training prepares success A.S. degree candidates for career in contractors’ or architects’ offices, building construction administration, or self-employment in the construction industry. The program is very flexible, allowing the student to choose electives that are most suited to their career goals. Some of the courses satisfy the requirement of the Construction Industry License Board for Continuing Education Units. Classes are conveniently offered days, evenings, and weekends.

Major course are taught on the Clearwater Campus:

Approved requirements for students with catalog year
2002/2003 or beginning 2012/2013 or later
- Refer to curriculum for previous catalog year requirements

GENERAL EDUCATION COURSES (18 credits)
*Enhanced World View Requirement
ENC 1101 Composition I (or Honors)
3
SPC 1017 Introduction to Speech Communication OR (SPC 1017H, 1085, 1608 or 1608H)
3
*Humanities/Fine Arts Approved Course
Mathematics
One college-level course with MAC, MAP, MAS, MGF, MTG or STA prefix
3
*Social and Behavioral Sciences Approved Course
PHI 1600 Philosophy in Applied Ethics OR (PHI 1602H, 1631, 2635 or 2640)
3
Computers/Information Literacy Competency Requirement

SUPPORT COURSES (12 credits)

Select 9 credits:
BUL 2131 Legal Environment of Business
3
BUL 2241 Business Law I
3
BUL 2242 Business Law II
3
GEB 1011 Introduction to Business
3
MAN 2340 Supervisory Management
3
HRE 1040 Real Estate Principles and Practice
4
SGM 1600 Small Business Entrepreneurship
3

Select 3 credits:
Any course with SLM, ESC, GLY, PHY, PSC prefix
3

MAJOR COURSES (36 credits)

Codes – Select 3 credits:
BCN 1930 Hurricane Resistant Design for Residential Construction
1
BCN 2068 The A.D.A.: Primer for Contractors
1
BCN 2730 Occupational Safety and Health (OSHA) Standards for the Construction Industry
1
BCT 1700 Building Codes
2
BCT 2702 RCS-86 Hurricane Code
1
BCT 2704 SSTD 10-96 “Deemed to Comply”
1

Drawing – Select 3 credits:
ARC 1285C Architectural Drawing I
3
BCN 1050 Building Specifications
1
BCN 1251C Construction Drawing
3
BCN 1272 Blueprint Reading
2
ETD 1320C Introduction to CAD
3
ETD 1340C AutoCAD II
3
ETD 1350C AutoCAD III 3-D Modeling
3
TAR 2122C Advanced Construction Drawing
3

Estimating – Select 3 credits:
BCT 1770 Construction Estimating
3
BCT 2771 Advanced Estimating and Scheduling
3
### Appendix A: Program Overview, 2012, con’t

**General – Select 3 credits:**
- ARC 1701 Architectural History I
- ARC 1702 Architectural History II

**Industry – Select 3 credits:**
- BCN 1593 A Building’s Life
- BCN 2070 Avoiding and Resolving Construction Claims
- BCT 2708 Advanced Construction Project Management
- BCT 2730 Job Site Supervising
- TAR 1271 Professional Practice

**Materials – Select 3 credits:**
- ARC 2581 Materials and Methods of Construction I
- BCN 1557 Residential Heating, Ventilating and Air Conditioning (HVAC) Systems
- BCN 1558 Residential Plumbing Systems
- BCN 1569 Residential Electrical Systems
- BCN 1592 Energy Efficient Building Construction for Florida’s Climate
- BCN 1596 Environmental Technology for Building Construction
- BCN 1597 An Introduction to Solar Energy in Residential Construction
- BCN 2052 Masonry Construction Methods
- BCN 2053 Roofing Systems
- BCN 2054 Construction Surveying Methods
- BCN 2055 Concrete Construction Methods
- BCN 2056 Steel Construction Methods

**Work Experience - Select 3 credits:**
- BCN 1540 Construction Practicum
- BCN 2849 Co-op Work Experience
- TAR 1841 Architectural Drafting Practicum
- TAR 2849 Co-op Work Experience

**Electives - Select 15 credits:**
- ARC, BCN, BCT, or TAR prefix

**TOTAL PROGRAM HOURS** 66
### Building Arts

**ASSOCIATE IN SCIENCE DEGREE (DRAFT-AS)**

http://www.spc.edu/programs/ARCH-AS

Brod Jenkins, Program Director  CL 7271-341-4378

This program prepares students for careers in drafting as a professional in architect's offices, general contractor's offices, civil and mechanical firms, municipal government offices, and with consulting firms.

The program coverage includes courses related to architectural and building construction, codes and materials, structural and mechanical engineering, and CO-OP work experience.

Major course are taught on the Clearwater Campus.

**APPROVED REQUIREMENTS FOR STUDENTS WITH CATALOG YEAR 2009-2010 OR LATER**

~ REFER TO CURRICULAR FILES FOR PREVIOUS CATALOG YEAR REQUIREMENTS

### GENERAL EDUCATION COURSES (18 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 1101</td>
<td>Composition I or (Honors)</td>
<td>3</td>
</tr>
<tr>
<td>SPC 1017</td>
<td>Introduction to Speech Communication OR (SPC 1017H, 1005, 1008 or 1608H)</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Fine Arts Approved Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences Approved Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHI 1900</td>
<td>Studies in Applied Ethics OR (PHI 1002H, 1031, 2035 or 2049)</td>
<td>3</td>
</tr>
<tr>
<td>Computer/Information Literacy Competency Requirement</td>
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### SUPPORT COURSES (12 credits)

Select 9 credits:

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<tr>
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<tbody>
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<td>BUL 2131</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BUL 2241</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUL 2242</td>
<td>Business Law II</td>
<td>3</td>
</tr>
<tr>
<td>GEB 1011</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>MAN 2340</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>REE 1040</td>
<td>Real Estate Principles and License Law</td>
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Select 3 credits:

CHM, ESO, GGY, PHY, PSC prefix

### MAJOR COURSES (32 credits)

#### Drafting Core (12 credits)

<table>
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<tr>
<td>BCN 1250C</td>
<td>Construction Drawing</td>
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</tr>
<tr>
<td>ETD 1320C</td>
<td>Introduction to CAD</td>
<td>3</td>
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<tr>
<td>ETD 1340C</td>
<td>AutoCAD II</td>
<td>3</td>
</tr>
<tr>
<td>ETD 1350C</td>
<td>AutoCAD III 3-D Modelling</td>
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</table>

#### Drawing – Select 3 credits:

<table>
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<tr>
<th>Course</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ARC 1126C</td>
<td>Architectural Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>BCN 1050</td>
<td>Building Specifications</td>
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</tr>
<tr>
<td>BCN 1272</td>
<td>Blueprint Reading</td>
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<tr>
<td>TAR 2125C</td>
<td>Advanced Construction Drawing</td>
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</table>

#### Codes – Select 3 credits:

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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BCN 1930</td>
<td>Hurricane Resistant Design for Residential Construction</td>
<td>1</td>
</tr>
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<td>BCN 2068</td>
<td>The A.D.A. Primer for Contractors</td>
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</tr>
<tr>
<td>BCN 2732</td>
<td>Occupational Safety and Health (CISHA) Standards for the Construction Industry</td>
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</tr>
<tr>
<td>BCT 1700</td>
<td>Building Codes</td>
<td>2</td>
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<tr>
<td>BCT 2782</td>
<td>RCS-96 Hurricane Code</td>
<td>1</td>
</tr>
<tr>
<td>BCT 2794</td>
<td>SSTD 10-96 “Deemed to Comply”</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Materials – Select 3 credits:

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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC 2601</td>
<td>Materials and Methods of Construction I</td>
<td>3</td>
</tr>
<tr>
<td>BCN 1057</td>
<td>Residential Heating, Ventilating and Air Conditioning (HVAC) Systems</td>
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</table>
## Appendix A: Program Overview, 2012, con’t

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>BCN 1056</td>
<td>Residential Plumbing Systems</td>
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</tr>
<tr>
<td>BCN 1059</td>
<td>Residential Electrical Systems</td>
<td>1</td>
</tr>
<tr>
<td>BCN 2052</td>
<td>Masonry Construction Methods</td>
<td>1</td>
</tr>
<tr>
<td>BCN 2063</td>
<td>Roofing Systems</td>
<td>1</td>
</tr>
<tr>
<td>BCN 2054</td>
<td>Construction Surveying Methods</td>
<td>1</td>
</tr>
<tr>
<td>BCN 2055</td>
<td>Concrete Construction Methods</td>
<td>1</td>
</tr>
<tr>
<td>BCN 2056</td>
<td>Steel Construction Methods</td>
<td>1</td>
</tr>
</tbody>
</table>

**Work Experience - Select 3 credits**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCN 1940</td>
<td>Construction Practicum</td>
<td>3</td>
</tr>
<tr>
<td>BCN 2940</td>
<td>Co-op Work Experience</td>
<td>1-3</td>
</tr>
<tr>
<td>TAR 1941</td>
<td>Architectural Drafting Practicum</td>
<td>3</td>
</tr>
<tr>
<td>TAR 2940</td>
<td>Co-op Work Experience</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Electives - Select 15 credits:**

ARC, BCN, BCT, or TAR prefix

### TOTAL PROGRAM HOURS

62
Appendix B: Advisory Board Committee Minutes and Recommendations, 2012-13

Department of Engineering Technology & Building Arts
ADVISORY MEETING

Thursday, May 2, 2013
5:00 - 6:15PM
Clearwater Campus
Collaborative Center for Emerging Technologies
2465 Drew Street
Clearwater, FL 33755

SUMMARY

Members Present: Tina Bradnichl, Ed Homan, Don Houdek, David Reese, Matt Smith, Scott Choquette, Lisa Macirolek, Bill Venz, Bob Hudson, and Brad Jenkins.

Members Excused: Mark Snyder, Ken Conforti, Dan Bloom, Lou Grilli, Greg Seay, Roger Harvey, Clint Mells, Joe DiPasqua, Steve Ashew, Bill Erdmann, Randy Swanson, Rodney Jaramillo, Ned Stacy.

Guests: Alex McKenna, Amy Apicerno, Krista Fusari, Dustin Smith, Giovanna Taylor, Greg Lewis

After the introduction of members and guests, Brad Jenkins, and Greg Lewis, Senior instructor for Solid Works, provided a tour of the Collaborative Center for Emerging Technologies (CCET) that opened last August 2012. The tour highlighted the open manufacturing layout of the Center with the different work cells and areas for Solid Works Design, manufacturing with the rapid prototyping and CNC equipment, the electronics work cell, the metrology and inspection area, advanced testing with PLCs and robotics and the soft wall clean room. The Center now has over $1.1 million of equipment and facilities. Separate lab rooms have been eliminated as labs are conducted in the Center in an open access area. Everyone was quite impressed with the equipment and laboratories in the CCET.

Course Enrollment:

Brad Jenkins provided the enrollment update from this Fall 2012 and Spring 2013 year, in which the enrollment is up 9.88% in Engineering Technology and decreased 11.74% in Building Arts, as compared to the Fall session in 2011. For the Spring 2013, the enrollment is up 12.09% in Engineering Technology and increased 2.84% in Building Arts, as compared to the Spring session in 2012. The Graduation data from December 2012 and May
Appendix B: Advisory Board Committee Minutes and Recommendations, 2012-13, cont.

2013 indicated for Engineering Technology, 20 A.S. degrees and 61 Certificates awarded, and for Building Arts, 16 A.S. degrees and 9 Certificate were awarded. (the revised enrollment sheet is attached)

Update on Action Items:

The committee received an update on the action items from the September 6, 2012 meeting concerning the Collaborative Center of Emerging Technologies along with the contacts of industry for donated industrial equipment. The committee members not attending also received the list of the graduate data and enrollment.

Architectural and Building Arts updates:

Bob Hudson reported that of the 7 Architectural AA degree transfer students that applied to the USF Masters in Architectural program, that 5 were accepted. Bob also reported that of the 30 USF Masters in Architecture graduates, which 5 were from our SPC program. The Building Arts students completed their work with the construction company building for new Ethics and Social Science classroom building this spring. The students kept a journal on their experiences.

U.S. Department of Labor (DOL) Grant updates:

The college has written and participated in two proposals with the U.S. Department of Labor (DOL) Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant. Brad provided a brief update on the Florida TRADE grant, a $15 million proposal for industry training certifications that also involves 11 other state colleges. The structure for the application process and the path for training are underway at all colleges. SPC will begin later this summer to begin some preliminary training.

Giovanna Taylor, the newly selected Program Director of the other DOL grant, Biosciences Credentials, Medical Devices, provided an update on the activities of that grant. SPC is a partner with Ivy Tech Community College, in Indiana, and Salt Lake City Community College for the Medical Devices Hub. The major goal is to develop an A.S. degree in Medical Manufacturing with a number of specializations and college certificates. Giovanna will be contacting the medical device industry this summer in regards to validating the skills and training needs for this industry. SPC will be hosting the fall meeting of the Medical Devices Hub September 17-18, 2013.

Equipment Requests and approvals:

Brad presented for approval two equipment requests: A Pneumatic equipment package to be used in automation and robotics, and a Reverse Engineering Arm to provide the reverse engineering for our manufacturing and rapid prototyping program. The committee gave the approval for both of these equipment purchases.

NSF Grant Updates:

Brad provided the update on the DeafTec NSF grant of the Rochester Institute of Technology (RIT) National Technical Institute for the Deaf (NTID) that started this fall. The training for faculty and counselors will begin this summer and continue in the fall. Local industry will be invited to participate later this summer for training.

The FLATE updates this year included the new remodeled FLATE website with its updated industry page. FLATE is continuing to work with the Florida Department of Education (DOE) to review and update the Engineering Technology curriculum frameworks concerning the college certificates for this summer. There are now 14 state colleges that have adopted the A.S. degree in Engineering Technology.

All the information is available on the FLATE website: (www.fl-ate.org and www.mademiflorida.org)

Building Arts
2012-13 Comprehensive Academic Program Review
Institutional Research and Effectiveness

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Appendix B: Advisory Board Committee Minutes and Recommendations, 2012-13, cont.

Action Items:

The action items of this meeting included:

1. Brad Jenkins will send an updated list of the graduate data and enrollment to all advisory members, in order to provide that information to the members not attending this meeting.

2. Brad will be completing the purchasing process to order the equipment approved.

The meeting was adjourned at 6:35 P.M.

The next advisory committee meeting will be September 12, 2013 at the EpiCenter for a dinner meeting. The agenda will be sent out prior to the meeting. (there may be a late summer meeting, but a notification will go out on that later)

Respectfully submitted,

Bradley E. Jenkins
Secretary
Appendix C: Advisory Board Committee Minutes and Recommendations, 2011-12

St. Petersburg College

Department of Engineering Technology and Building Arts
Advisory Committee Meeting

Wednesday, April 4, 2012

Summary

Members Present: Tina Brudnicki, Ken Conforti, Bob Hudson, Greg Seay, Matt Smith, and Brad Jenkins.

Members Excused: Mark Snyder, Don Houndek, John DeBella, Lou Grilli, Marcus Heiler, Dan Bloom, David Reese, Roger Harvey, Clint Melle, Joe DiPasqua, Steve Askew, Bill Erdmann, Randy Swanson, Ed Homan, Keith Matthews, Rodney Fischer, Deb Ashman-Jaramillo, Bob Hudson, Ned Stacy, Bill Erdmann, Scott Choquette, and Lisa Macirolek.

Guests: Stan Vittetoe, Provost, Clearwater Campus, Gary Graham, Project Manager.

Course Enrollment:
Brad Jenkins provided the enrollment update from this Spring 2012 year, in which the enrollment is down 9.76% in Engineering Technology and 19.48% in Building Arts, as compared to the Spring session in 2011. This decrease is attributed to students taking fewer courses and the companies draw back on tuition reimbursement. Overall however enrollment remains steady. The Graduation data from December 2011 indicated for Engineering Technology, 7 A.S. degrees and 25 Certificates awarded, and for Building Arts, 7 A.S. degrees and 3 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 for this summer.

Collaborative Center of Emerging Technologies:
The committee received the layout of the lab and equipment placement for the Collaborative Center for Emerging Technologies. The building will be ready for classes for August. The Facilities Planning Department will give an updated timetable later this summer 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.
Appendix C: Advisory Board Committee Minutes and Recommendations, 2011-12, cont.

Architectural and Building Arts updates:
Bob Hudson provided the update in regards to the Architectural and Building Arts students that are continuing their work with the construction company building the new Ethics and Social Science classroom building. The students are on site one day a week and are keeping a journal on their experiences. The building is now scheduled for an October 2012 completion.

Nanotechnology Survey Activity:
Brad Jenkins provided the summary information from the Nanotechnology Forum held at the Epicenter Collaborative labs from that March 20 activity. The committee also received additional information on the ETS 2360 course, Introduction to Nanotechnology and expressed interest in this course especially if it is goes on-line. Brad will have additional information on the nanotechnology curriculum later this summer.

NSF Grant updates:
Brad provided the update on the DeafTec NSF grant of the Rochester Institute of Technology (RIT) National Technical Institute for the Deaf (NTID). The RIT grant team has met with SPC in March to begin the work on this grant.

Gary Graham informed the advisory committee that the NSF did not approve the SPC proposal for the National Center Grant for Medical Devices. The NSF review committee suggested that the SPC develop an NSF project for national certification in the medical devices.

Brad also provided the FLATE updates from this spring and also remarked that there are now 11 state colleges that have adopted the A.S. degree in Engineering Technology. The success of this state program is now looked as a national model for Engineering Technology.

Other Discussion Topics:
Brad informed the committee about the dual enrollment program and also the Early College High School program at SPC. The students receive their high school diploma as well as their A.A. degree by going through this Early College program. He suggested that the students be given an opportunity to work on either the A.A. or the A.S. degree. The committee agreed that this would provide a choice that the students might be interested in and suggested a follow up to this issue.

Action Items:
The action items of this meeting included:

1. Additional information regarding Nanotechnology will be sent to the committee.

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 not attending this meeting.

3. Brad will be contacting industry this spring/summer to obtain donated industrial equipment.

4. Information concerning the AA/AS degree for the high school students will be addressed.

The meeting was adjourned at 8:45 p.m.

The next meeting will be September 6, 2012 dinner meeting, at a college site to be determined. The agenda will be sent out prior to the meeting.

Respectfully submitted,

Bradley E. Jenkins
Secretary
Appendix C: Advisory Board Committee Minutes and Recommendations, 2011-12, cont.

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 Mellts, Lou Grilli, Greg Sany, 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 46 Certificates were 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.
Appendix C: Advisory Board Committee Minutes and Recommendations, 2011-12, cont.

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 competition 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.
Appendix C: Advisory Board Committee Minutes and Recommendations, 2011-12, cont.

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 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
Appendix D: Advisory Board Committee Minutes and Recommendations, 2010-11

St. Petersburg College
Clearwater Campus

Department of Engineering Technology and Building Arts
Advisory Committee Meeting

Wednesday, April 13, 2011

Summary

Members Present: Deb Ashman-Jaramillo, Bob Hudson, Tina Brudnicki, Greg Seay, Marcus Heiler, Don Houdok, Bill Venz, Jay Margolis, and Brad Jenkins.


Brad Jenkins welcomed the advisory members to the fall meeting and a tour was conducted of the Electronics Lab and Rapid Prototyping area emphasizing the new equipment that the Perkins Funds provided with the advisory committee approvals this past year. The equipment purchased included the Agilent 200MHz Digital Storage Oscilloscopes (DSOs), the 25 MHz function generators, and the 50 MHz Pulse generators. The Rapid Prototyping area is now home to the new U-print 3-D printer and the Roland CNC machine. Both instruments are used with the Solidworks design and modeling courses.

Brad provided the enrollment update from this spring 2011 year, in which the enrollment is up about 15% in Engineering Technology and about 26% in Building Arts, as compared to the spring session in 2010.

The committee received the information on the May 2011 graduates, as of May 13. (the complete listing of graduates for the session is now included with this summary)

The committee received an update on the action items from the November 10, 2010 meeting and the only items that are still open are the survey questionnaires for alternative energy and
Appendix D: Advisory Board Committee Minutes and Recommendations, 2010-11, cont.

nanotechnology along with the update for the ET and BA department web pages. The committee also received the update on the purchase of the church property and building to the west of the campus that has been allocated for the Collaborative Center of Emerging Technologies that will have all the Engineering Technology laboratories and equipment in a factory/manufacturing layout. The plans are being finalized now for the layout of test benches and equipment in an open 3000 square foot area. This area will house the electronics lab, rapid prototyping area, metrology, inspection, alternative energy, and the new nanotechnology lab. The advisory committee will receive the updates and layouts for the center. 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 summer.

In regards to the curriculum offerings, changes in both the Aviation Maintenance Management AS degree and the Computer Aided Design Certificate were approved by the members of the advisory committee. The new college certificate, Rapid Prototyping and Design is the first of this type in the state and was also approved by the committee. The certificate will be effective for January 2012. The committee was provided additional information on these curriculum proposals that will be considered by the Curriculum & Instruction Committee.

The committee gave approval to the purchase, using the Perkins Funds, of three new Agilent DSO’s and function generators that will now complete the electronics laboratory for 12 complete workstations.

In updating the curriculum proposals developed and approved from last year, the new courses, Solidworks Simulation Design Analysis and the Advanced Architectural Revit course, were offered for the first time this spring session 2011.

In regards to the new Nanotechnology opportunities with the University of South Florida (USF), the State College of Florida, Manatee-Sarasota, and Hillsborough Community College, Brad Jenkins will attend the first Micro-Nanotechnology Conference in Albuquerque, New Mexico in May. This collaboration with the other institutes is in the developmental stages and this conference will provide information involving curriculum, equipment, and industry relationships.

The FLATE activities from this spring include the Engineering Technology Summer Institute on Rapid Prototyping and Design. This three day workshop begins June 13, here in our Rapid Prototyping lab, and will be open to community college instructors and high school teachers that want to use Solidworks and develop 3-D printing capabilities. (Note that at the last meeting Bill Venz made a suggestion to look into the possibility of offering a summer camp utilizing Solidworks and Rapid Prototyping for high school students)

The analysis and results from the Manufacturing Related Certificates was presented to the committee members. The committee had reviewed and submitted their results last year indicating the most recognized industry certificates that they felt were of value in industry.
Appendix D: Advisory Board Committee Minutes and Recommendations, 2010-11, cont.

The grant opportunities and updates, included an NSF National Center Grant partnership with Rochester Institute of Technology to offer curriculum and special education for the deaf and hearing impaired students and graduates of Engineering Technology programs through the DeafTEC proposal. There has been no word yet on the status of that grant proposal. The college is also the primary lead on the National Science Foundation (NSF) National Center Grant for Medical Devices. That proposal will be submitted before October 20 with several other partner colleges partnering on this grant proposal with SPC.

In student updates, the awards for the Outstanding Student in Engineering Technology went to Adam Kennedy; the Architecture Design Award to Chris Galbraith; and the Gargoyle Architecture Honor Society Academic Achievement Award to Jesse Eiissen. These students will be recognized at the April 27 Awards Ceremony here at the Clearwater Campus.

The action items of this meeting included:

1. Brad Jenkins will provide the updates concerning the Collaborative Center for Emerging Technologies.
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 summer to obtain donated industrial equipment.

The meeting was adjourned at 6:45 p.m.

The next meeting will be in October, 2011, at the Epicenter that will include a College-wide dinner meeting. The agenda will be sent out prior to the meeting.

Respectfully submitted,

Bradley E. Jenkins
Secretary
Appendix D: Advisory Board Committee Minutes and Recommendations, 2010-11, cont.

St. Petersburg College
Clearwater Campus

Department of Engineering Technology and Building Arts
Advisory Committee Meeting

Wednesday, November 10, 2010

Summary

Members Present: Roger Harvey, Bob Hudson, Greg Seay, Marcus Heiler, Matt Smith, Dan Bloom, Bill Venz, and Brad Jenkins.


Guests: Gary W. Graham, Outreach Coordinator, Academic & Student Affairs, SPC, Jay Margolis, and Kyle McCollum.

Brad Jenkins welcomed the advisory members to the fall meeting and welcomed new member Dan Bloom, DBAI Consulting to the committee. Guests included Gary Graham and Kyle McCollum.

Brad provided the enrollment update from 2009 to this fall 2010 year, in which the enrollment is down overall about 6% in Engineering Technology and is up about 7% in Building Arts, after being down the year before in 2008. The reason for the increase in the Building Arts was due to the new energy related course offerings and the decrease in Engineering Technology was due to a correction in the course offerings in the technical core. The enrollment remains strong in the ET program and it appears that Building Arts is increasing.

The committee received the information on the July 2010 graduates that brought the total for the year to 35 students receiving AS Degrees in Engineering Technology and Building Arts and 98 receiving college certificates. This list of the graduate data and enrollment will be sent to all members.
Appendix D: Advisory Board Committee Minutes and Recommendations, 2010-11, cont.

The committee received an update on the action items from the May 26, 2010 meeting and the only items that are still open are the survey questionnaires for alternative energy and nanotechnology along with the update for the ET and BA department web pages. Gary Graham commented that the college is working on a common format and needs to update over 16,000 web pages. Bill Venz’s suggestion, from the last advisory meeting, that the department look into the possibility of offering a summer camp utilizing Solidworks and Rapid Prototyping for high school students is being reviewed for consideration and development.

In regards to the curriculum offerings, the new courses developed this past spring and summer will have the first offering this spring 2011. The Solidworks Simulation Design Analysis course and the Advance Architectural Revit courses will be offered in the evening.

The results, from the certificate review, completed at the last advisory committee meeting, have not been compiled yet by the Florida Advanced Technological Education (FLATE) Center. As soon as those results are completed, that information will be sent to the members.

In exploring the advanced technology opportunities for the department, Brad mentioned that the college is a testing site for SolidWorks and work has begun to develop another certificate program in SolidWorks, that would be a separate certificate under the Digital Design and Modeling specialization. There will be some additional information later on this proposal.

The department is also seeking additional space to house and expand all the laboratories. The new name given to this area will be: The Collaborative Center for Emerging Technologies (CCET). There will be more information later on this initiative.

The grant opportunities and updates, included an NSF National Center Grant partnership with Rochester Institute of Technology to offer curriculum and special education for the deaf and hearing impaired students and graduates of Engineering Technology programs through the DeafTEC proposal. The NSF Grant proposal will be acted upon for review by NSF in December. The grant would also involve the industrial community in our area. The college is also the primary lead on the NSF Planning Grant for Medical Devices. The planning grant is used to write a proposal for a National Center for Medical Devices. The FLATE updates included the fact that 10 community and state colleges have now adapted the AS degree in Engineering Technology.

In student updates, an Honor Society Chapter for Architectural Students was started this fall with Jason Green, an Architectural Instructor, serving as the advisor.
Appendix D: Advisory Board Committee Minutes and Recommendations, 2010-11, cont.

Other discussion topics included the Six Sigma Green Belt update from Jay Margolis, the Lean Six Sigma Instructor. Jay provided information concerning his working with both the healthcare industry on the needs of that sector and the public safety program here at SPC to add the lean and six sigma topics or courses into that program. Jay remarked that he is also looking into developing the lean six sigma courses for on-line delivery.

Bob Hudson, Instructor in Building Arts provided an update on the AS degree in Building Construction as well as the new BAS degree in Sustainability Management. He also explained how the AA degree in architecture articulates directly into the MA degree in Architecture at the University of South Florida. This is the only AA program of its type to go directly into a Masters program.

The action items of this meeting included:

1. Brad Jenkins will provide the update concerning any new facilities for the department’s laboratories.

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. A survey questionnaire will be developed for both the alternative energy and nanotechnology areas and sent to the committee for input.

4. The committee members were asked to email additional topics on nanotechnology and what they think would be required for a technician to have to work in emerging companies using nanotechnology. Those comments should be sent to jenkinsb@spcollege.edu.

The meeting was adjourned at 6:45 p.m.

The next meeting will be Wednesday, April 13, 2011. The agenda will be sent out prior to the meeting.

Respectfully submitted,

Bradley E. Jenkins
Secretary