



ALAMO  
COLLEGES

Office of the President

---

ST. PHILIP'S COLLEGE

August 18, 2010

Dr. Belle Wheelan, President,  
Commission on Colleges  
Southern Association of Colleges and Schools  
1866 Southern Lane  
Decatur, GA 30033

Dear Dr. Wheelan:

Per your request in your letter sent June 30, 2010, St. Philip's College is submitting a prospectus for the January 2010 implementation of a new program, Associate of Applied Science in Power Generation and Alternative Energy. Please find enclosed the prospectus, provided both electronically and in hard copy.

I look forward to hearing from you regarding this submission. Please let me know if you have any additional questions or concerns.

Sincerely,

A handwritten signature in cursive script, reading "Adena Williams Loston".

Adena Williams Loston, PhD  
President

**Substantive Change Prospectus:  
January 2010 Implementation of a New Degree Program**

**Prepared by St. Philip's College**

**Submitted to Commission on Colleges of the  
Southern Association of Colleges and Schools**

**August 15, 2010**

Substantive Change Prospectus  
Cover Sheet

**Include name phone number and e-mail address of person to be contacted with questions regarding the prospectus**

Mecca Salahuddin  
Director of Planning Research and Effectiveness  
210-486-2897  
[msalahuddin1@alamo.edu](mailto:msalahuddin1@alamo.edu)

**List degrees that the institution is authorized to grant. As a subset of each degree list majors available**

St. Philip's College is authorized to grant the Associate of Applied Science degree in the following programs:

Accounting Technician	Diesel/Light to Heavy Truck Technology (2524)
Accreditation Leadership (2598)	Early Childhood Studies
Administrative Office Technology	Electrical Trades
Air Conditioning and Heating	General Motors Automotive Service Educational Program (ASEP)
Aircraft Technician Airframe	Health Information Technology
Aircraft Technician Powerplant	Hospitality Event Management
Automotive Technology - Option II Ford ASSET AAS	Hotel Management
Automotive Technology	Industrial Maintenance Management
Baking and Pastry Arts	Invasive Cardiovascular Technology
Biomedical Equipment Technology	Language and Literacy in Preschool (2563)
Business Management and Technology (2739)	Medical Laboratory Technician
CNC Manufacturing Technician	Network Administrator
Collision/Refinishing Technician	Network Security Administrator
Computer Aided Drafting (Architectural)	Occupational Therapy Assistant
Computer Maintenance Technology with Network Specialization	Physical Therapist Assistant
Computer Maintenance Technology	Precision Metal Workers: Manufacturing Operations Technician
Construction Business Management (2755)	Radiography Technologist
Construction Technology	Refrigeration Technology
Culinary Arts	Respiratory Care Technology
Desktop Support Specialist	Restaurant Management
Diagnostic Medical Sonography	Web Developer
Diesel Construction Equipment Technician	Welder/Welding Technologist

St. Philip's College is authorized to grant the Associate of Arts degree in the following programs:

Business Administration	Kinesiology
Ceramics and Sculpture	Liberal Arts
Comic Book Illustration	Mathematics
Computer Science	Music
Criminal Justice	Philosophy
Design	Pre-Engineering
Digital Media	Pre-Social Work
Drawing and Painting	Psychology
Economics	Sociology
English	Speech
Foreign Language (Spanish)	Stage Craft
General Studies	Statistics
Government	Teacher Education
History	Theatre Performance
Humanities	

St. Philip's College is authorized to grant the Associate of Science degree in the following programs:

Biology	Mechanical Engineering
Chemistry	Physics
Earth Sciences and Natural Energy Resources	Pre-Dentistry
Environmental Science	Pre-Medicine
General Science	Pre-Nursing
Health Professions Degree	Pre-Optometry

St. Philip's College is authorized to grant Certificates in the following programs:

Advanced Cisco Systems Networking	Health Information Specialist
Air Conditioning and Heating	Heating and Air Conditioning Specialist
Aircraft Mechanic Airframe	Histologic Technician
Aircraft Mechanic Powerplant	Home Building
Aircraft Structures Mechanic	Hotel Limited Service Property Management
Aircraft Turbine Mechanic	Legal Word Processing Specialist
Architectural Drafting 3D Enhanced Skills	Machinist/Machine Technologist
Automotive Technology	Manual/Semi-Manual Inert Gas Welding GTAW/GMAW Welder
Avionics	Microsoft Office Specialist (MOS)
Baking Principles	Network Professional *
Brake and Front End Specialist	Network Professional: Server+
Building Trades	Network Systems Technician
Child Development Associate National Credential (CDA)	Office Assistant
Cisco Systems Networking	Payroll Clerk
CNC Operator	Performance Specialist
Coding Specialist	Plastics
Collision Technology	Plumber's Helper
CompTIA Linux+ Certification Preparation (MSAC)	Plumbing Trades
Computer Aided Drafting Technician (Architectural)	Precision Metal Worker: Production Tool Operator / Maintenance Assistant
Computerized Accounting Technician	Precision Metal Workers: Manufacturing Operations Maintenance Assistant
Culinary Studies	Precision Metal Workers: Manufacturing Operations Maintenance Mechanic
Data Driven Web Developer	Precision Metal Workers: Manufacturing Skills Trade Helper
Desktop Support Specialist	Refinishing Technology
Diesel/Heavy Equipment Technology Diesel/Light to Heavy Duty Truck Transmission Specialist (2660)	Refrigeration
Diesel/Light to Heavy Truck Technology (2524)	Specialty Medical Transcriptionist
Documentation Coding Specialist	Structural/Pipe Layout
Early Childhood Studies	Surgical Technology
Electrical Trades	Transmission Specialist
Electronics Assistant	Vocational Nursing
Entrepreneurship	Web Designer Level I
Ford Maintenance and Light-Duty Repair	Web Developer
General Medical Transcriptionist	

**List certificate, diploma, and degree programs which are related to the proposed programs:**

St. Philip's College offers the Associate of Applied Science in Computer Maintenance Technology. This program offers five academic and six technical courses that are similar to the proposed Associate of Applied Science in Power Generation and Alternative Energy degree.

**List institutional strengths that facilitate the offering of the proposed program (s):**

St. Philip's College has a history of offering workforce education programs to the city of San Antonio and surrounding communities. Currently, almost 50% of the College's programs are in the area of workforce education. Similar to the proposed Associate of Applied Science and Power Generation and Alternative degree, the College currently offers degrees in Electrical Trades and Electronics Technology. Because of these current offerings, the College has qualified faculty already on staff. In addition, the College has the commitment and support from the Alamo Colleges Board of Trustees to provide training programs in leading edge technology.

The College has close working relationships with business and industry partners in electrical power generation and alternative energy throughout San Antonio and surrounding cities: City Public Service (CPS) Energy, Austin Power, Luminant Power, NRG Power, Hill Country Electric, Tierra Verda Sola, Nova Electric, and Standard Aero. This also includes a strong working relationship and funding from the Texas Tech Prep program for high school dual credit students.

The College has received substantial financial support for the proposed program. The Texas' State Energy Conservation Office has awarded the college \$2,000,000 to install a solar PV

system for use as a laboratory. Additional funding has been received through the College Cost Reduction Activity Act (CCRA-A) grant. Monies were used to fund the construction of the facilities, lab equipment and infrastructure. There are additional opportunities to provide training programs in wind turbine gearbox and hydrogen fuel cell service as the technology develops.

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## ABSTRACT

St. Philip's College is seeking approval for the implementation of a new degree program, Associate of Applied Science in Power Generation and Alternative Energy. The new program will offer a level I certificate and a marketable skills certificate. The College will begin implementation of the new program January 2010. The program will provide instruction in electrical power generation by conventional methods, such as gas turbine and steam generation, and renewable technology such as wind, solar and hydrogen fuel cell. Wind and solar are proven technologies and the program will include wind and solar fundamentals as well as installation, maintenance and troubleshooting. Since hydrogen fuel cell technology is not widely implemented at this time, only an introductory course will be offered as part of the program.

An initial enrollment of 18 students is expected with an additional 18 students enrolling in the second year. By the third year we expect new enrollments of up to 50 students per year with a projected graduation rate of 25 students per year. Enrollment is dependent on the growth of the renewal energy sector, federal stimulus funds and public awareness of green technology and its acceptance on a large scale. Locally, CPS Energy funds a rebate program for residential and commercial solar installations and federal tax rebates are available to offset the cost of solar. The state of Texas has approved a new law which allows home owners to encumber their property for the cost of a solar installation which is then paid back through property taxes.

Finally, CPS Energy has started a program which will pay for solar generated electrical power at about 2.8 times the rate of conventional generation which has already stimulated construction of large-scale commercial solar projects intended to replace conventional power generation capacity. We believe there will be an increase in the demand for technicians trained in all phases of electrical power generation.

We are targeting two groups of prospective students with this program. First, we expect to recruit from local school districts for our Associate of Applied Science students. We have already developed dual credit agreements with three school districts, Harlandale ISD, Comal ISD and Northside ISD and expect to expand our dual credit agreements with other schools in the area. Alamo Tech Prep funded lab equipment for the first three high schools which includes test equipment and solar trainers. The second group we are targeting includes workers currently employed in the electrical or electronics trades job sectors. We expect them to pursue certificates instead of Associate of Applied Science degrees.

The city of San Antonio requires solar installers to obtain certification from The National Board of Certified Electrical Practicioners (NABCEP), therefore, we anticipate a large demand for this training. The NABCEP certification procedure requires candidates to attend a NABCEP approved training facility before taking the certification exam. Thus, we are pursuing certification as a NABCEP training provider.

This is a long-term program which will only grow as renewable technologies replace conventional electrical generation capacity. At this point, we do not anticipate an end date for the program and see only an increased demand for training in this area.

Delivery methods will mirror St. Philip's current offerings in electrical and electronics technology. These offerings are a combination of lecture/demonstration and a hands-on component to allow the students to master newly acquired skills. The ratio between lecture and lab averages slightly less than 75 percent lecture. The program utilizes existing courses to provide basic electrical and electronics training and additional courses provide training in electrical generation.

The program will start at the St. Philip's Martin Luther King (MLK) campus (1801 Martin Luther King Ave, San Antonio, TX 78203) and transition to the Southwest Campus location (800 Quintana Rd., San Antonio, TX 78211) when the facilities are completed in the fall of 2010. It is anticipated that not all classes will transfer immediately, but over a 1-2 year period as enrollment increases. Those classes that will transition last will be those that are part of other programs on the MLK campus.

## BACKGROUND INFORMATION

The Power Generation and Alternative Energy program is designed to provide workforce training for conventional power generation—coal, gas, and electrical power generation by renewable technologies such as wind and solar. This is not a change from the College's mission of providing technical training for San Antonio and Bexar county, but rather a response to changing technology. The rapid integration of wind and solar PV technology is generating a gap between current workforce qualifications and new requirements. Alamo Colleges and St. Philip's College are merely responding to the needs of the San Antonio community.

The program was presented to, and approved by the Alamo College Board of Trustees at their regular meeting on April 28, 2009. See Appendix A. It was submitted to the Texas Higher Education Coordinating Board (THECB) on April 28, 2009 and approval was received on June 30, 2009. See Appendix B.

## ASSESSMENT OF NEED AND PROGRAM PLANNING/APPROVAL

The program was developed at the request of government and private entities for a program to address the perceived gap between current workforce qualifications and those skills required for a large scale implementation of wind and solar electrical power generation capacity. A preliminary study was accomplished during the fall of 2008 and it was determined a need existed for this training and a full scale feasibility study was undertaken fall 2008 to spring 2009, the results of which are outlined below.

This is an emerging field with great potential for growth as renewable energy receives more attention from the federal government. Proposals from President Barak Obama for a Renewable Energy Portfolio (REP) of 25 percent by 2025 and tax incentives for installing residential solar and wind technology will increase demand for these skills.

The following companies have stated they will require the following new technicians by the date indicated:

CPS Energy – 10 technicians by 2010  
Luminant Energy – 500 technicians by 2015.  
Reliant Energy – 200 technicians by 2015  
Austin Energy – 5 technicians by 2010

State-wide, the demand for these skills is outlined in the following link to the state comptroller's office:

[http://www.window.state.tx.us/specialrpt/workforce/PDF/03\\_Executive\\_Summary.pdf](http://www.window.state.tx.us/specialrpt/workforce/PDF/03_Executive_Summary.pdf)

Nationally, demand for these skills is outlined in the following link to the National Science Foundation's NTE project:

[http://www2.aacc.nche.edu/ate2007/WorkshopAlternativeEnergy\\_Munukulta2.pdf](http://www2.aacc.nche.edu/ate2007/WorkshopAlternativeEnergy_Munukulta2.pdf)

Currently, there are four related programs in the state. Austin Community College has a Solar Program, TSTC West Texas has a Wind Technology program, TSTC Waco has a Power Production program and Houston Community College has an Alternative Fuel program. Related programs are being developed at Tarrant County College. There are no existing programs within 50 miles of San Antonio.

We also explored links with the new program to colleges in San Antonio and surrounding areas and are currently in the process of articulating the Power Generation and Alternative Energy program with Texas A&M Kingsville. The articulation agreement will outline a 2+2 to a Bachelor of Applied Science degree.

## DESCRIPTION OF CHANGE

**Program Objectives:** The Alternative Energy Technology program would provide students a strong education in alternative energy and related disciplines to prepare them for a career in electricity production at either a regional electrical production facility or a residential energy contractor. The students would be prepared to monitor and control electricity generation via renewable energy sources such as wind and solar-voltaic systems as well as traditional fossil fueled generation. Additionally, the students will receive training in hydrogen fuel cell technology to prepare them for this emerging field. The students will have a strong background in process control technology which is required to generate and distribute electricity through the national electric grid. Students will receive appropriate safety training, problem-solving, teamwork, oral and written communication, and job search skills.

**Curriculum:** The program would require students to complete 60-62 semester hours which includes 47 semester hours in technical courses from the Workforce Education Course Manual and 15 semester hours from the Lower Division Academic Course Guide Manual (ACGM). The program would require implementation of 9 new courses to the college in topics such as electrical power distribution, principles of automatic control, introduction to fuel cell technology, wind power delivery systems, solar photovoltaic systems, fluid power systems, flow and measurement calibration, distributive control systems and temperature control. The program would also incorporate existing academic courses in computation, social science, humanities, communication and natural science. See Appendix C. A practicum/internship would be used to verify workplace competencies. Students

successfully completing the program would be awarded the Associate of Applied Science degree in Power Production and Alternative Energy Technology.

Admission and graduation requirements for the students in this program will be the same as the other technical programs offered by St. Philip's College.

The program will be administered by the Chair of the Electronics and Information Technology Department under the Dean of Applied Science and Technology. The Chair will adhere to procedures set forth by the Vice President of Academic Affairs and the St. Philip's College Curriculum Committee. Curriculum is guided by an advisory industry committee as set forth by the Texas Higher Education Coordinating Board (THECB). The committee meets at least once a year to evaluate the program and make changes to curriculum or other aspects of the program under the committee's control. All changes to the program are channeled through the St. Philip's College Curriculum Committee, Alamo College Curriculum Committee and THECB for approval.



## FACULTY

In addition to the full-time faculty already on staff, we have hired an additional full-time faculty member and approved two additional adjunct faculty with training and experience in the electrical industry to meet the needs of the program. Our initial enrollment goals of 18 new students per year are modest and will provide a full teaching load for the new full-time faculty. We already offer multiple sections of four of the courses in the program. Initially we will fold the alternative energy students into existing classes for CETT-1409, CETT-1329, CETT-1307, and RBTC-1301 which will increase class size and possibly add one additional section of these classes each year. The remaining classes will be taught by the new full time instructor or an instructor already on staff who is qualified to teach the courses.

With the additional full-time faculty member and availability of two adjunct faculty, we do not anticipate the new program will have an impact on current faculty teaching loads.

A complete roster of faculty who will be teaching classes in the Power Generation and Alternative Energy program is provided in Appendix E. The table provides the listing of courses to be taught, the academic degrees, and additional qualifications.

## LIBRARY AND LEARNING RESOURCES

St. Philip's College Learning Resources Center provides an educational environment that stimulates leadership, personal growth, and a lifelong appreciation for learning. The Center operates the Library, Computer Operations, and Media Services. Resources are available to enhance classroom instruction and meet the needs of students, faculty, staff, and administrators. A large number of resources are available on and off-campus at both the MLK and SW campuses. The College has requested new books, periodicals, and electronic media to support the Power Generation and Alternative Energy program. The following resources are available to all students:

- Alamo College Libraries Catalog
- Electronic Databases
- InterLibrary Loan (ILL)
- Links to Other Libraries

To further assist students with their research related needs, the College provides

- Anatomical Models
- Assistive Technology for Special Needs
- 36 Computers with MS 2007 and Internet
- Copy Machines
- Current Magazines and Periodicals
- Individual and Group Study Areas
- Full-Text Microfiche
- Music CDs

St. Philip's College students can request information and research related needs through an online "Ask a Librarian" service. This service is available 24/7 for research assistance within 24 hours. In addition, there is a chat service available. Faculty and students can request library instruction training. Available to students are Library Guides compiled by the librarians to assist students with their research and provide subject-specific guides and other resourceful information.

Library and Media Services for the Southwest Campus are currently housed in Bldg 1, adjoining Rooms 140A, 140B, and 141. Room 141 houses 12 public computers. Each computer has a fast Internet connection and Microsoft Office 2007. The library at SWC is staffed with one professional librarian and one para-professional. As a result of the Power Generation program and other programs coming online, the library facility at Southwest is being renovated and enhanced with a larger Media Services component and includes a library instruction classroom, individual and group study rooms, additional computer and study stations.

Slated to be included in the new library are an enclosed photocopy services area for student use and a Media Production suite equipped with technology so students can create multimedia information sources for classroom presentations. Also included is an expanded Circulation/Reserves/Interlibrary Loan area to meet the expected increase and demand for these services. In addition, library faculty offices were added to accommodate current and increased library services to accommodate these programs.

The current library maintains a collection of almost 70 print magazines, journals, and newspapers. Titles include both career related sources, such as *Aerosafety World*, *American Statistician*, *Brake & Front End*, *Construction Equipment*, *Modern Woodworking*, *Light Plane*

*Maintenance*, as well as leisure reading materials such as, *U.S. News & World Report*, *Hispanic, Latina, Ebony*, and *Sports Illustrated*. To support college faculty and classroom instruction, the library also subscribes to *Community College Journal*, *College Teaching*, and *Mathematics Teacher*. Our materials are based on the requests of faculty and to meet the needs of library patrons. Each department has a librarian assigned to work with the classroom faculty in collection management as well as library instruction.

Specifically for these programs, we have subscribed to four print mathematics journals requested for the Center for Excellence in Science and have added a three-year subscription to Gale Cengage Learning's *Global Reference on the Environment, Energy, & Natural Resources (GREENR)*. We are in the process of submitting a subscription to *Current Collections* from Thomson Reuters for four coverage areas – Agriculture, Biology, & Environmental Sciences, Engineering, Computing, & Technology, Life Sciences, and Physical, Chemicals, & Earth Sciences. These will allow students to study emerging trends and keep up with research in their fields. Faculty will also be able to locate grant opportunities as well as incorporate new knowledge from the field into classroom instruction.

## PHYSICAL RESOURCES

The Southwest Campus will be renovated to house the new program in Power Generation and Alternative Energy. The physical resources will include:

- Three classrooms. Each classroom will be approximately 30' X 50' and will be equipped with 18 workbenches and storage accommodations for the miscellaneous equipment not attached to a specific trainer.
- 3-phase AC. Each classroom will include 3-phase AC to accommodate the industrial quality equipment purchased for the program.
- Wind turbine and solar panel. A fixed 1.8 KW wind turbine and 3.0 KW solar panel installation will be installed on the ground outside the facility for familiarization and training
- Solar PV system. An additional 400 KW solar PV system will be installed on the roof to provide student access to a large solar array
- Structure. A 24' X 36' structure will be provided for practice installation of a residential solar PV system.
- An electromechanical trainer
- A process control trainer
- An AC/DC motor trainer
- A solar PV troubleshooting trainer
- A mechanical trainer
- A pneumatic trainer
- A hydraulic trainer

- A hydrogen fuel cell electrical generator trainer
- A flow trainer
- A wind system trainer
- A solar thermal trainer
- Test equipment. Oscilloscopes, function generators. Frequency counters, digital volt meters, process analyzers, LCR meters, power supplies, and megohm meters.
- Assorted ladders, safety equipment and miscellaneous mechanics tools

## FINANCIAL SUPPORT

Initial funding for the program is from the College Cost Reduction Activity Act (CCRA-A) which will pay for renovation of facilities at Southwest Campus, equipment purchases and training. The instructor salaries will be paid out of the St. Philip's College operational budget. No additional expenditures are expected during the first three years of the program.

Total Projected Income for 5 years: \$16,566,943

Tuition and Fees \$1,005,516 (279 students X \$3604 tuition)

Local Funding \$0

State Funding \$2,291,427 (279 students X 1392 contact hours X \$5.90)

Business Support \$0

Other Sources \$13.27M (Approved Grants – Dept of Education, Texas Renewable Energy Education Consortium and Title III funding)

Facilities: Three labs will be provided at SWC. Renovations will be accomplished using \$10.09 in grants from the Department of Education College Cost Reduction Activity Act which has already been approved. Construction is scheduled to be completed by August 1, 2010.

Equipment: The following equipment will be ordered over a two year period. \$629K has been obligated for 2009 and \$800K for 2010. The equipment requisitioned in 2009 has been ordered and received. The equipment for 2010 has been requisitioned and will be received by 31 August, 2010.

There are no plans to expend funds for ongoing contractual or support services for the program.

The operation and management of the program will fall under the Electronics and Information Technology Department. No additional management oversight will be required. Additional funds for the program will be provided through the department's yearly operating budget. This program qualifies for Perkins funding and it is anticipated that Perkins Funds will be available in the future. The resources have already been received, therefore, no contingency plan is required.



## EVALUATION AND ASSESSMENT

The college uses various means to assess the effectiveness of instructional programs. No one instrument can provide a comprehensive evaluation of program effectiveness so the college uses a combination of voluntary and mandatory programs to evaluate instructional effectiveness.

Instructor evaluation by Chair. The Chair evaluates the performance of each instructor annually until the instructor is granted tenure, then they are evaluated every other year. Chair's evaluate the progress of the instructor toward tenure and promotion at this time.

Instructor classroom observation by Chair. The Chair observes the instructors in the classroom and makes recommendations to improve the instructors performance. This observation is also used by the tenure and promotion committee to evaluate instructors for promotion and tenure.

Peer reviews. A group of three tenured instructors observes all non-tenured faculty once each year to ensure all instructors meet college standards of performance in the classroom. This observation is also used by the tenure and promotion committee to evaluate instructors for promotion and tenure.

Student surveys. 100 percent of a nontenured faculty classes and 50 percent of tenured faculty classes are evaluated each semester. The evaluations are used by the Chair of the department for yearly performance appraisals. The evaluations are also used to evaluate faculty for promotion and tenure.

Practicum assessment by employers. Each student who completes a workforce program engages in a practicum experience where they complete at least 224 hours on-site with a

local employer. The employer evaluates the student and the program to determine if the college is meeting their expectations.

Quality Enhancement Program. We are in the third year of QEP and will be evaluating 100 percent of classes offered by the college to determine how effectively our students meet our critical thinking requirements.

Community College Survey of Student Engagement. The college uses the CCSSE to determine how effectively the college is engaging students in the college experience and how it affects learning outcomes.

THECB reports on participation, graduation, and placement. The college must meet THECB goals to maintain programs in good standing with the state. Programs that fail to meet standards must develop an action plan to address shortcomings or face deactivation of the program.

**APPENDIX A.**

**Regular Board Meeting Program Approval Minutes**

**Minutes**  
**Alamo Community College District**  
**Regular Board Meeting**  
**George E. Killen Community Education & Service Center**  
**201 W. Sheridan**  
**San Antonio, Texas**  
**April 28, 2009**

**CALL TO ORDER AND ROLL CALL**

Chair Denver McClendon called the meeting to order at 6:31 p.m. and announced that a quorum of board members was present.

The following trustees were present:

District 1	Dr. Bernard K. Weiner
District 2	Denver McClendon, Chair
District 3	Anna U. Bustamante, Asst. Secretary
District 4	Marcelo S. Casillas, Secretary
District 5	Roberto Zárate
District 6	Dr. Gene Sprague
District 7	Charles J. Conner
District 8	Gary Beitzel, Vice Chairman
District 9	James Rindfuss

Presiding Administrator: Dr. Bruce H. Leslie

**CERTIFICATION AND POSTING OF NOTICE**

Chair McClendon announced that the notice of the Regular Board Meeting had been duly posted at the District Office Building (Houston St.), Northeast Lakeview College, Northwest Vista College, San Antonio College, St. Philip's College and at Southwest Campus, Palo Alto College, and the ACCD George E. Killen Community Education & Service Center fulfilling the requirement of the statutes as set forth.

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**INVOCATION**

The invocation was given by Mr. David E. Mrizek, Vice President of College Services, SAC

**PLEDGE OF ALLEGIANCE**

The Pledge of Allegiance was recited.

**CITIZENS TO BE HEARD**

Enrique Moreno, student at San Antonio College spoke in regards to having access to Alamo Colleges budget

Julianne Cantu, president of the SAC Student Government spoke in opposition to the proposed tuition increase.

Paula McKenna, president of SAC Faculty Senate spoke in regards to openness of process of college district name change.

Dr. Mary-Ellen Jacobs, president of PAC Faculty Senate spoke in regards to open communication between District and campuses

**MEMORIALS**

Chancellor Leslie announced the loss of these ACC employees:

**March 2009**

Larry G. Bailey, Professor, Management, SAC

Oscar F. Metzger, retired, Director Learning Resources, SAC

Levi J. Jackson, retired, Professor Counseling and Guidance, SPC

A moment of silence was observed.

**CEREMONIALS**

Mr. Lacy Hampton, Alamo Colleges Facilities and Construction Department, was awarded the Minority Small Business Champion of the Year

**RECOGNITION OF SPECIAL GUESTS, FACULTY AND STAFF****Student of the Month (March 2009) *Scholarship Courtesy La Prensa Foundation***

Student Rajah Greer, Northwest Vista College, unable to attend and will be recognized during the May 2009 regular board meeting.

**District-Wide Employee of the Month (April 2009)**

Dr. Ana M. "Cha" Guzmán, President of Palo Alto College, introduced District-Wide Employee of the Month Jason Mundine, Computer Support Technician, Information & Communication Technology, PAC. Dr. Guzmán cited Mr. Mundine's dedication and efforts at assisting students and staff with their technology needs and his strong commitment to the success of students.

**EXECUTIVE SESSION**

Chair McClendon announced that the meeting would adjourn into Executive Session under the statutes providing for such Executive Session at 6:52 p.m.

**RECONVENE OPEN MEETING**

Chair McClendon reconvened the meeting into Open Session on April 28,, 2009 at 7:20 p.m.

**DISCUSSION AND POSSIBLE ACTION ON REGULAR BOARD MEETING ON MARCH 17, 2009**

On a motion by Trustee Weiner and seconded by Trustee Beitzel and by unanimous vote of the Board, the following minute order was adopted:

"The minutes of the Regular Board Meeting of the Board of Trustees of the Alamo Community College District held on March 17, 2009 are hereby approved."

**1. CHAIRMAN'S REPORT**

Board Chairman McClendon relayed information from the Achieving the Dream Initiative and conference relating to the success rates of our college students and the need for improvement in this area. Chairman McClendon charged Chancellor Leslie with implementing changes that will improve our student success rate without increasing cost or adversely affecting the quality of our instruction. Dr. Leslie indicated that efforts were already underway with the assistance of Dr. Kristine Clark, Vice Chancellor of Academic Success, and a preliminary report would be provided by the May 2009 Regular Board Meeting.

**2. CHANCELLOR'S REPORTS**

There were no items to report

**3. PROGRAM HIGHLIGHTS: AMERICAN SIGN LANGUAGE/INTERPRETER TRAINING, SAC**

Dr. Robert Ziegler, President of San Antonio College (SAC) introduced Ms. Lauri Metcalf, Interpreter Training Program Chairperson from SAC. Ms. Metcalf was accompanied by former student and program graduate Ms. Cristina Gerloff, who provided sign language interpretation during the program highlights.

**4. DISCUSSION AND POSSIBLE ACTION ON A PROGRAM APPLICATION FOR ASSOCIATES OF APPLIED SCIENCE, LEVEL I CERTIFICATE, AND MARKETABLE SKILLS ACHIEVEMENT CERTIFICATE IN POWER GENERATION AND ALTERNATIVE ENERGY**

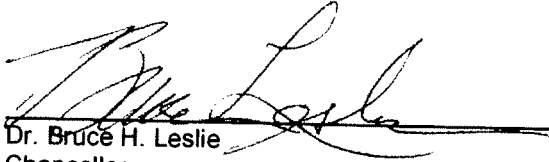
On a motion by Trustee Casillas and seconded by Trustee Weiner and by unanimous vote of the Board, the following minute order was adopted:

"The Board of Trustees authorizes the President of St. Philip's College or her designee to submit a new program application for an Associate of Applied Science Degree in Power Generation and Alternative Energy, a Level I Certificate in Power Generation and Alternative Energy and a Marketable Skills Award Certificate in Power Generation and Alternative Energy to the Texas Higher Education Coordinating Board (THECB)".

**ADJOURNMENT**

There being no further business, the meeting was adjourned at 9:07 p.m.

Approved for submission to the Board:



Dr. Bruce H. Leslie  
Chancellor



Prepared by: Felix Garza Medina III  
Board Relations/Special Projects

APPENDIX B.

THECB Program Approval Notice



## MC DONAUGH, BARCLAY

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**From:** CARTLEDGE, MAUREEN  
**Sent:** Tuesday, June 30, 2009 5:30 PM  
**To:** AGUILERA, SYLVIA; ANDRADE, HENRIETTA; ARREDONDO, ROSA; BRISITA, RAFAEL; CLIBURN, JAMES; EICHELBERGER, JOHN; GARZA, LETICIA; GONZALES, JANIE; HANCOCK, KATHERINE; KABO, JUDY; KUNZ, MARY; KYLE-BANKSTON, ROSE M; LONGORIA, SUSIE; MC DONAUGH, BARCLAY; RAY, PAMELA; VILLELA, JUAN; YBARRA, JOSE  
**Subject:** FW: Award Approval

Fyi. M.

-----Original Message-----

**From:** DALRYMPLE, RUTH  
**Sent:** Tuesday, June 30, 2009 4:12 PM  
**To:** CARTLEDGE, MAUREEN; SIDES, KAREN; SALAHUDDIN, MECCA; KUNZ, MARY; CLIBURN, JAMES  
**Subject:** FW: Award Approval

Fyi

Ruth

-----Original Message-----

**From:** CTCDivision@theeb.state.tx.us [mailto:CTCDivision@theeb.state.tx.us]  
**Sent:** Tuesday, June 30, 2009 2:41 PM  
**To:** DALRYMPLE, RUTH  
**Subject:** Award Approval

Ruth Dalrymple,

The award, Power Generation and Alternative Energy, has just been approved by the Co-Board.

This message was automatically generated. Please do not reply to this e-mail.

## MC DONAUGH, BARCLAY

---

**From:** CARTLEDGE, MAUREEN  
**Sent:** Tuesday, June 30, 2009 5:31 PM  
**To:** AGUILERA, SYLVIA; ANDRADE, HENRIETTA; ARREDONDO, ROSA; BRISITA, RAFAEL;  
CLIBURN, JAMES; EICHELBERGER, JOHN; GARZA, LETICIA; GONZALES, JANIE;  
HANCOCK, KATHERINE; KABO, JUDY; KUNZ, MARY; KYLE-BANKSTON, ROSE M;  
LONGORIA, SUSIE; MC DONAUGH, BARCLAY; RAY, PAMELA; VILLELA, JUAN;  
YBARRA, JOSE  
**Subject:** FW: Award Approval

FYI. M>

-----Original Message-----

**From:** DALRYMPLE, RUTH  
**Sent:** Tuesday, June 30, 2009 4:12 PM  
**To:** CARTLEDGE, MAUREEN; SIDES, KAREN; SALAHUDDIN, MECCA; KUNZ, MARY; CLIBURN, JAMES  
**Subject:** FW: Award Approval

Fyi

Ruth

-----Original Message-----

**From:** CTCDivision@theccb.state.tx.us [mailto:CTCDivision@theccb.state.tx.us]  
**Sent:** Tuesday, June 30, 2009 2:43 PM  
**To:** DALRYMPLE, RUTH  
**Subject:** Award Approval

Ruth Dalrymple,

The award, Level 1 Certification Power Generation and Alternative Energy, has just been approved by the Co-Board.

This message was automatically generated. Please do not reply to this e-mail.

## MC DONAUGH, BARCLAY

---

**From:** CARTLEDGE, MAUREEN  
**Sent:** Tuesday, June 30, 2009 5:31 PM  
**To:** AGUILERA, SYLVIA; ANDRADE, HENRIETTA; ARREDONDO, ROSA; BRISITA, RAFAEL;  
CLIBURN, JAMES; EICHELBERGER, JOHN; GARZA, LETICIA; GONZALES, JANIE;  
HANCOCK, KATHERINE; KABO, JUDY; KUNZ, MARY; KYLE-BANKSTON, ROSE M;  
LONGORIA, SUSIE; MC DONAUGH, BARCLAY; RAY, PAMELA; VILLELA, JUAN;  
YBARRA, JOSE  
**Subject:** FW: Award Approval

FYI. M.

-----Original Message-----

**From:** DALRYMPLE, RUTH  
**Sent:** Tuesday, June 30, 2009 4:13 PM  
**To:** CARTLEDGE, MAUREEN; SIDES, KAREN; SALAHUDDIN, MECCA; KUNZ, MARY; CLIBURN, JAMES  
**Subject:** FW: Award Approval

Fyi

Ruth

-----Original Message-----

**From:** CTCDivision@theeb.state.tx.us [mailto:CTCDivision@theeb.state.tx.us]  
**Sent:** Tuesday, June 30, 2009 2:44 PM  
**To:** DALRYMPLE, RUTH  
**Subject:** Award Approval

Ruth Dalrymple,

The award, Marketable Skills Achievement Certificate Power Generation and Alternative Energy, has just been approved by the Co-Board.

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APPENDIX C.

Power Generation and Alternative Energy Degree Requirements

Applied Science Division  
 Power Generation and Alternative Energy Degree (2926)  
 Associate of Applied Science

Total Credit Hours: 60

<b>Classes</b>	<b>General Education</b>
<i>Electronics and Information Technology</i>	
CETT 1307	3
CETT 1409	4
CETT 1329	3
FCEL 1302	3
CETT 1325	3
INTC 1341	3
INTC 1357	3
INTC 1359	3
RBTC 1301	3
WIND 2359	3
<i>Mathematics or Natural Sciences</i>	
Math	3
or	
Natural Sciences	3
<i>Allied Construction</i>	
ELPT 2239	2
Hart 1311	3
<i>Social or Behavioral Science</i>	
Social Science	3
or	
Behavioral Science	
<i>Humanities or Fine Arts</i>	
Humanities	3
or	
Fine Arts	3
<i>Communications and Learning</i>	
Communications	3

APPENDIX D.

Power Generation and Alternative Energy Curriculum Outline

ST. Phillip's College

FICE CODE: 003608

www.acc.edu/spc

AAS Power Generation and Alternative Energy Technology

CIP: 15.404

CURRICULUM OUTLINE

1 <sup>st</sup> YEAR									
Fall Sem									
Prefix	Number	Course Name	Course Type	Weekly Lec Hours	Weekly Lab Hours	EXT Hours	Cont Hours	Cred Hours	
CETT	1307	Fundamentals of Electronics	WECM	2	2	0	64	3	
CETT	1409	DC-AC Circuits (FLEX I)	WECM	4	1	0	80	4	
CETT	1329	Solid State Devices (Flex 2)	WECM	2	3	0	80	3	
*	*	Math*	ACGM	3	0	0	48	3	
				11	6	0	272	13	

1 <sup>st</sup> Year									
Spring Sem									
Prefix	Number	Course Name	Course Type	Weekly Lec hours	Weekly Lab Hours	EXT Hours	Contact Hours	Cred Hours	
ELPT	2239	Electrical Power Distribution	WECM	2	0	0	32	2	
INTC	1341	Principles of Automated Control	WECM	3	1	0	64	3	
INTC	1357	AC/DC Motor Control	WECM	3	1	0	64	3	
FCEL	1302	Introduction to Fuel Cell	WECM	3	1	0	64	3	
*	*	Natural Science*	ACGM	3	0	0	48	3	
				14	4	0	288	14	

1 <sup>st</sup> Year									
Summer Sem									
Prefix	Number	Couse Name	Course Type	Weekly Lec Hours	Weekly Lab Hours	Ext Hours	Contact Hours	Cred Hours	
CETT	1325	Digital Fundamentals	WECM	3	1	0	64	3	
*	*	Social Science*	ACGM	3	0	0	48	3	
				6	1	0	112	6	

2 <sup>nd</sup> Year									
Fall Sem									
Prefix	Number	Course name	Course Type	Weekly Lec Hours	Weekly Lab Hours	Ext Hours	Contact Hours	Cred Hours	
WIND	2359	Wind Power Delivery Systems	WECM	3	1	0	64	3	
HART	1311	Solar Fundamentals	WECM	3	1	0	64	3	
RBTC	1301	Programmable Logic Controllers	WECM	3	1	0	64	3	
INTC	1359	Temperature Control	WECM	3	1	0	64	3	
*	*	Humanities*	ACGM	3	0	0	48	3	
				15	4	0	304	15	

March 25, 2009

2 <sup>nd</sup> year								
Spring Sem								
Prefix	Number	Course Name	Course Type	Weekly Lec Hours	Weekly Lab Hours	Exit Hours	Contact Hours	Cred Hours
INTC	1358	Flow and Measurement Calibration	WECM	3	1	0	64	3
INTC	2359	Distributive Control Systems	WECM	3	1	0	64	3
INTC	2388	Internship – Instrumentation Technology/Technician or	WECM	1	0	16	256	3
INTC	1355	Unit Operations (Capstone Course)	WECM	2	4	0	96	3
*	*	Communications*	ACGM	3	0	0	48	3
				10/11	2/6	16	432/272	12
			total	56/57	17/21	16	1408/1248	60

For courses identified by an asterisk, students may take any course in the college catalogue identified for Associate of Applied Science majors under this heading.



ST. Phillip's College

FICE CODE: 003608

www.acc.edu/spc

Level 1 Certificate Power Generation and Alternative Energy Technology

CIP: 15.404

1 <sup>st</sup> YEAR								
Fall Sem								
Prefix	Number	Course Name	Course Type	Weekly Lec Hours	Weekly Lab Hours	EXT Hours	Cont Hours	Cred Hours
CETT	1307	Fundamentals of Electronics	WECM	2	2	0	64	3
CETT	1409	DC-AC Circuits (FLEX 1)	WECM	4	1	0	80	4
CETT	1329	Solid State Devices (Flex 2)	WECM	2	3	0	80	3
ELPT	2239	Electrical Power Distribution	WECM	2	0	0	32	2
				10	6	0	256	12

1 <sup>st</sup> Year								
Spring Sem								
Prefix	Number	Course Name	Course Type	Weekly Lec hours	Weekly Lab Hours	EXT Hours	Contact Hours	Cred Hours
WIND	2359	Wind Power Delivery Systems	WECM	3	1	0	64	3
HART	1311	Solar Fundamentals	WECM	3	1	0	64	3
FCEL	1302	Introduction to Fuel Cell	WECM	3	1	0	64	3
FCEL	1302	Introduction to Fuel Cell	WECM	3	1	0	64	3
CETT	1325	Digital Fundamentals	WECM	3	1	0	64	3
				12	5	0	320	11

**CURRICULUM OUTLINE**

ST. Phillip's College  
003608

FICE CODE:

www.acc.edu/spc

Marketable Skills Award Certificate Power Generation and Alternative Energy Technology

CIP: 15.404

1 <sup>ST</sup> YEAR								
Fall Sem								
Prefix	Number	Course Name	Course Type	Weekly Lec Hours	Weekly Lab Hours	EXT Hours	Cont Hours	Cred Hours
WIND	2359	Wind Power Delivery Systems	WECM	3	1	0	64	3
HART	1311	Solar Fundamentals	WECM	3	1	0	64	3
FCEL	1302	Introduction to Fuel Cell	WECM	3	1	0	64	3
FCEL	1302	Introduction to Fuel Cell	WECM	3	1	0	64	3
				12	4	0	256	12

**APPENDIX E.**

**Faculty Roster**

Instructor Name	Course Listing		Additional Qualifications
Robert Fransman	INTC1341 (N) INTC1357 (N) INTC1359 (N) INTC1301 (N)	INTC1358 Flow and Measurement Control (N) INTC2359 Distributive Control System (N) INTC1355(N) CETT1325 Digital Fundamentals (N) HART1311 Solar Fundamentals(N)	<b>BS Electrical Engineering</b> <i>Alfred State University</i> <b>MS Electrical Engineering</b> <i>Alfred State University</i> <b>AAS Heavy Ground Based Radar System</b> <i>Community College of the Air Force</i> <b>AAS Instructional Technology</b> <i>Community College of the Air Force</i> <b>BS Industrial Vocational Education</b> <i>Southern Mississippi University</i> NABCEP Certification in Solar Installer, Fiber Optics Technician Certification by Electronics Technician Association Apprentice Electrician
Louis Johnson	CETT1307 Fundamentals of Electronics (N) CETT1409 DC-AC Circuits(N) CETT1329 Solid State Devices(N)	INTC1341 (N) CETT1325 Digital Fundamentals (N) INTC2388 (N)	<b>AAS Electronics Technology</b> <i>Community College of the Air Force</i> <b>BS Electronics Technology</b> <i>Wayland Baptist University</i> <b>MA Human Resource Development</b> <i>Webster University</i>
Dennis McDonaugh	CETT1307 Fundamentals of Electronics (N) CETT1409 DC-AC Circuits(N) CETT1329 Solid State Devices (N)	FCEL1302 Introduction to Fuel Cell Technology (N) INTC2388 (N)	<b>BS Electrical Engineering</b> <i>University of Texas San Antonio</i> <b>MS Electrical Engineering</b> <i>University of Texas San Antonio</i> <b>PhD, Biomedical Engineering</b> <i>University of Texas San Antonio</i> <b>BSoE Occupational Education</b> <i>Capella University</i> <b>MS Education Post Secondary and Adult</b> <i>Capella University</i>
Albert Vasquez	CETT1307 Fundamentals of Electronics (N) CETT1409 DC-AC Circuits (N) CETT1329 Solid State Devices (N) CETT1325 Digital Fundamentals (N)	after attending training INTC1341 (N) INTC1357 (N) INTC1359 (N) INTC1301 (N) INTC1358 Flow and Measurement Control (N) INTC2359 Distributive Control System(N) INTC1355 (N)	CETT1307 Fundamentals of Electronics (N) CETT1409 (DC-AC Circuits (N) CETT1329 Solid State Devices (N) INTC1341 Principles of Automatic Control (N) CETT1325 Digital Fundamentals (N) ELPT2339 Electrical Power Distribution(N) WIND2359 Wind Power Delivery Systems (N)
Daniel Sherry	CETT1307 Fundamentals of Electronics (N) CETT1409 (DC-AC Circuits (N) CETT1329 Solid State Devices (N) INTC1341 Principles of Automatic Control (N) CETT1325 Digital Fundamentals (N) ELPT2339 Electrical Power Distribution(N) WIND2359 Wind Power Delivery Systems (N)		