

FY 2014-15

WISE Implementation Plan

Sowela Technical Community College

LCTCS SYSTEM

10/15/2014

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Implementation Plan

Workforce & Innovation for a Stronger Economy



Request for Proposal

Submitted By:
SOWELA Technical Community College



SOWELA Technical Community College
Skilled Labor within a College
Structural Welding Tier One SOC Code 51-4121
Pipefitters Tier One SOC Code 47-2152
Dollar amount requested \$624,500

Executive Summary

Purpose of the Grant

The five parish region of Southwest Louisiana (Allen, Beauregard, Calcasieu, Cameron and Jeff Davis), also known as the Lake Charles Metropolitan Service Area (MSA), is home to several major chemical, petrochemical, and natural gas industries. The natural gas industries in the Lake Charles region have announced expansion projects estimated at \$74 billion. Cheniere Energy, Sasol, G2X, Magnolia, Sempra, Axiall and Juniper GTL have announced new facilities in the Lake Charles MSA for their petrochemical operations. Cheniere Energy was given the go-ahead by federal regulatory agencies to convert their existing Sabine Pass import terminal in Cameron Parish, into an export facility. Sasol has selected Southwest Louisiana as the location for its Gas to Liquid (GTL) complex; the largest of its kind built in the United States and Cheniere Energy has already begun construction of a three train GTL expansion project in Cameron Parish.

Industries supporting the expansion have announced 74 billion dollars of capital improvement projects that will increase the demand for thousands of additional employees in the construction sectors. In total the Lake Charles MSA is expecting a growth of 40,000 direct construction specific jobs, along with twice that number of indirect jobs as a result of the growth in the energy sector.

Two Tier 1 industry sector jobs that are projected to experience significant growth include Welders and Pipefitters. Over the next 3 years the petrochemical belt of Louisiana projects hiring 5,000 Welders and 5,217 Pipefitters. This need for a trained workforce in these Tier 1 jobs is the driving force behind this proposal. The petrochemical sector in Southwest Louisiana is relying on SOWELA Technical Community College to have in place the construction related educational programs necessary to provide industry with a highly skilled workforce.

SOWELA Technical Community College is committed to serving the educational and training needs of Southwest Louisiana in building a 21st Century workforce.

The purpose of this WISE grant proposal is twofold. First, to provide SOWELA Technical Community College with the funds necessary to establish new educational programing in the Phelps Correctional facility to returning citizens desiring to acquire the skills that will afford them access to high paying jobs as welders or pipefitters. Second, the funds from this proposal will be used to fund additional welding instructors, welding equipment, and welding supplies on the SOWELA campus located in Lake Charles, Louisiana.

- The proposed Phelps Correctional Structural Welding program will train a minimum of 180 welders annually, run 405 clock hours and will be offered during the day and evenings on-site in the Phelps Correctional facility.
- The proposed Phelps Correctional Pipefitting program will train a minimum of 90 Pipefitters annually, run 315 clock hours and will be offered during the day and evenings on-site in the Phelps Correctional facility.
- The proposed welding program offered on the SOWELA campus will serve a minimum of 125 students annually in both credit and non-credit compressed industry training.

General Time Line of Grant

<i>Louisiana Community and Technical College System Timeline of Events for WISE – Fiscal Year 2014-15</i>			
Event or Activity	Description	When Event will Take Place	Person(s) Responsible
Initiate Program	Receive notification of funding award and load budget	First Day	Workforce Development Director and Controller
Advertise for Faculty	Search for and identify three qualified welding Instructors	First Month of Grant	Workforce Development Director and Human Resources
Procure Equipment	Identify vendor and purchase equipment	First Month of Grant	Business Office
Recruit Students	Advertise and solicit students for the non-credit program,	Second Month of Grant	Industry/community partners, Workforce Development
Hire Instructors	Make offers and hire three qualified instructor	Second Month of Grant	Human Resources
Order Supplies	Requisition expendables needed for first classes	Second Month of Grant	Instructor
Receive Materials	Receive equipment and supplies	Third Month of Grant	Business Office and Instructor
Enroll Students	Register and enroll students for courses	Third Month of Grant	Director, Admissions Registrar
Start Classes	Initiate instruction	Third Month of Grant	Instructor

Louisiana Community and Technical College System
Timeline of Events for WISE – Fiscal Year 2014-15

Event or Activity	Description	When Event will Take Place	Person(s) Responsible
Complete Semester	End instruction and evaluate learning outcomes	Twelfth Month of Grant	Workforce Development Director and Instructors
Throughout the one year funding cycle, non-credit training will occur. Therefore the timetable outlined above will be repeated as many times as is possible.			
Report Outcomes	Report on attainment of goals, metrics, and performance measures	Twelfth Month of the Grant	Workforce Development Director

Metrics

SOWELA will expand its non-credit welding programming in order to meet the specific and immediate needs of the emerging petrochemical construction sector in southwest Louisiana. The numbers of students served over the next 12 months through this initiative are as follows.

- Structural Welding 305 unduplicated students
 - Credential earned: NCCER Core, Level 1
- Pipefitters 90 unduplicated students
 - Credentials earned: NCCER Core, Levels 1 and 2

Performances Measures

The expected completion and placement rates for this program are as follows.

1. 90% of students enrolled will successfully complete the program.
2. 100% of students completing the program will obtain their national credentials.
3. 100% of students completing the program will obtain employment within 60 days of completion.
4. In total 356 students will complete the above and obtain employment.

Budget Narrative

Salaries/Related Benefits **\$ 221,520**

3 full-time welding instructor salaries (\$52,000) \$ 156,000

The grant will fund 3 full-time welding instructors to deliver NCCER core and Level 1 instruction.

Related benefits are calculated at 42% \$ 65,520

Equipment **\$ 233,870**

*Note: Pricing represents unit cost.

Grinding downdraft tables (2)(\$4,000); Bevel cutters (3)(\$2500); Cutting table (1)(\$2990) Storage cabinets (3)(2,500); Rod oven (2)(\$1,800); Cutting rigs (3)(\$2,000); Pipe vise (4)(\$750); Pipe stands (7)(\$250); Misc. welding machine fittings (15)(\$250); Miller 350 XMT 350 CC/CV (15)(\$3,400); Miller 22A Series Wire Feeder(10)(\$1,282) Lincoln Power Wave S350 (15)(\$3,950); Lincoln Power Feed 25M Wire Feeder(10)(\$3,051); Victor VCM 200 Cutting Machine (4)(\$3200); Victor Medalist 350 Welding & Cutting outfit (8)(\$550); Watts W 60-20 Straight Pipe Cutter (4)(\$3,500) Instructor Computer (2)(\$2,500)

Supplies **\$ 36,660**

Carbon Steel Plate, 7018 Welding Rods 3/32, 7018 Welding Rods 1/8, 6010 Welding Rods 1/8, 41/2" x 1/4" grinding wheels, Welding hoods w/#10 lens, Welding caps, Welder cutting goggles, Vice grip pliers, Chipping hammer, Leather welding gloves, Tape measure, Safety glasses Z87+, Wire brush, 71/2"x1/8" Grinding wheels, 2' X 41/4" Clear lens 100/bx., Victor cutting tips, Tweco Cable Connectors Male #1-30 2MPC, Tweco Electrode Holders, 200Amp Copper Ground Clamp, 3 Flint Torch Strikers, Replacement Flint, Disposable Ear Plugs, Carbon Arc Gouging Rods 5/16x12, Plasma Arc Tip 80Amp, Thermal Dynamics Plasma Start Cartridge, Plasma Arc Electrodes, AIG, Tank of Oxygen (filled Tank), Tank of Acetylene, Tank of Mapp Gas

Operating Services **\$ 70,000**

Electrical service installation (1) (60,000); Air fittings installation (1)(10,000)

Outreach (Instructor Recruitment) 5% **\$ 31,225**

SOWELA will recruit a certified welding and scaffolding instructors to teach day and/or evening welding and scaffold building courses.

Administrative Cost 5% **\$ 31,225**

Additional administrative support will be hired to support the delivery of this program.

Total Funds Requested **\$ 624,500**

Structural Welding and Scaffolding Training
Structural Welding Tier One SOC Code 51-4121
Scaffold Tier One SOC Code 49-9096
Dollar amount requested \$164,330

Executive Summary

Purpose of the Grant

The five parish region of Southwest Louisiana (Allen, Beauregard, Calcasieu, Cameron and Jeff Davis), also known as the Lake Charles Metropolitan Service Area (MSA), is home to several major chemical, petrochemical, and natural gas industries. The natural gas industries in the Lake Charles region have announced expansion projects estimated at \$74 billion. Cheniere Energy, Sasol, G2X, Magnolia, Semptra, Axiall and Juniper GTL have announced new facilities in the Lake Charles MSA for their petrochemical operations. Cheniere Energy was given the go-ahead by federal regulatory agencies to convert their existing Sabine Pass import terminal in Cameron Parish, into an export facility. Sasol has selected Southwest Louisiana as the location for its Gas to Liquid (GTL) complex; the largest of its kind built in the United States and Cheniere Energy has already begun construction of a three train GTL expansion project in Cameron Parish.

Industries supporting the expansion have announced 74 billion dollars of capital improvement projects that will increase the demand for thousands of additional employees in the construction sectors. In total the Lake Charles MSA is expecting a growth of 40,000 direct construction specific jobs, along with twice that number of indirect jobs as a result of the growth in the energy sector.

Two Tier 1 industry sector jobs that are projected to experience significant growth include Structural Welders and Scaffold Builders. Over the next 3 years the petrochemical belt of Louisiana projects hiring 2,262 Scaffold Builders and 5,000 Welders. This need for a trained workforce in these Tier 1 jobs is the driving force behind this proposal. The petrochemical sector in Southwest Louisiana is relying on SOWELA Technical Community College to have in place the construction related educational programs necessary to provide industry with a highly skilled workforce.

The purpose of this WISE grant proposal is to provide SOWELA Technical Community College with the funds necessary to expand the capacity of our existing welding facility, by an additional 25 welding stations, and Scaffold Building programs.

SOWELA Technical Community College is committed to serving the educational and training needs of Southwest Louisiana in building a 21st Century workforce.

- The proposed Structural Welding program will serve a minimum of 60 students annually, run 405 clock hours and will be offered during the evenings on the Lake Charles Campus; the epicenter of regional industrial expansion.
- The proposed Scaffold training will serve a minimum of 40 students annually, run 80 clock hours and will be offered during the day on the Lake Charles Campus.

General Time Line of Grant

<i>Louisiana Community and Technical College System Timeline of Events for WISE – Fiscal Year 2014-15</i>			
Event or Activity	Description	When Event will Take Place	Person(s) Responsible
Initiate Program	Receive notification of funding award and load budget	First Day	Workforce Development Director and Controller
Advertise for Faculty	Search for and identify one qualified Welding and scaffolding Instructors	First Month of Grant	Workforce Development Director and Human Resources
Procure Equipment	Identify vendor and purchase equipment	First Month of Grant	Business Office
Recruit Students	Advertise and solicit students for the non-credit program	First Month of Grant	Industry/community partners, Workforce Development
Hire Instructors	Make offer and hire one qualified instructor	First Month of Grant	Human Resources
Order Supplies	Requisition expendables needed for first classes	First Month of Grant	Instructor
Receive Materials	Receive equipment and supplies	Second Month of Grant	Business Office and Instructor
Enroll Students	Register and enroll students for courses	Second Month of Grant	Director, Admissions Registrar
Start Classes	Initiate instruction	Second Month of Grant	Instructor
Complete Semester	End instruction and evaluate learning outcomes	Twelfth Month of Grant	Workforce Development Director and Instructors

Louisiana Community and Technical College System
Timeline of Events for WISE – Fiscal Year 2014-15

Event or Activity	Description	When Event will Take Place	Person(s) Responsible
Throughout the one year funding cycle, non-credit training will occur. Therefore the timetable outlined above will be repeated as many times as is possible.			
Report Outcomes	Report on attainment of goals, metrics, and performance measures	Twelfth Month of Grant	Workforce Development Director

Metrics

SOWELA will expand its credit and non-credit welding programming in order to meet the specific and immediate needs of the emerging petrochemical construction sector in southwest Louisiana. The numbers of students served over a 12 month period through this initiative are as follows.

- Structural Welding 60 unduplicated students
 - Credential earned: NCCER Core, Level 1
- Scaffold Builders 40 unduplicated students
 - Credential earned: Industry Based Credential (IBC)

Performances Measures

The expected completion and placement rates for this program are as follows.

1. 90% of students enrolled will successfully complete the program.
2. 100% of students completing the program will obtain their national credentials.
3. 100% of students completing the program will obtain employment within 60 days of completion.

Budget Narrative

Salaries/Related Benefits **\$ 66,830**

1 full-time Welding Instructor \$ 45,000

The grant will fund 1 full-time welding instructor to deliver NCCER core and Level 1 instruction.

1 adjunct Scaffolding Instructor \$ 3,200

The grant will fund adjunct instructors to deliver scaffold training leading to an industry based credential.

Related benefits are calculated at 42% for full-time and 32% for adjunct faculty. \$ 18,630

Equipment **\$ 97,500**

*Note: Pricing represents unit cost.

Welding Booth 60x60x90 Diversitech Brand (15) (\$2,500); Welding Machine Lincoln (15)

Total Funds Requested **\$164,330**

Non-Destructive Testing
Tier One SOC Code 51-9060
Dollar amount requested \$ 316,938

Executive Summary

Purpose of the Grant

The five parish region of Southwest Louisiana (Allen, Beauregard, Calcasieu, Cameron and Jeff Davis), also known as the Lake Charles Metropolitan Service Area (MSA), contain several major industries whose primary mission is based on advancing the chemical, petrochemical, natural gas and nuclear energy sectors. The energy sector industries in the Lake Charles region have announced expansion projects estimated at \$74 billion over the next 5 years. Cheniere Energy, Sasol, G2X, Magnolia, Chicago Bridge & Iron, Sempra, Axial and Juniper GTL have announced new facility expansions scheduled in the Lake Charles MSA for their respective energy sectors. Industries supporting these expansions have announced billions of dollars of capital improvement projects that will increase the demand for thousands of additional employees in the construction sectors.

In addition to the well-established petrochemical sector, Lake Charles is also home to a robust and growing aviation industry. Companies such as Northrup Grumman, AAR and ERA, whose primary business is aviation repair, employ thousands of fabricators and mechanics and generate billions of dollars of income for the region.

While these two industries may seem unrelated, they both share a common need. They both need for an inexhaustible supply of readily available Non-Destructive Testing Inspectors; which at this time simply does not exist, because no other facility exists regionally to provide the training.

According to a recent study completed in 2013 by GE Oil & Gas, “Finding qualified non-destructive testing (NDT) inspectors remains one of the biggest challenges in complex industrial environments. According to research firm Frost & Sullivan, the demand for skilled inspectors in the U.S. continues to grow due to stricter government regulations and the increasing sophistication of NDT methods. The problem is also acute outside the U.S., as thriving economies in South America, Asia and Africa ramp up their infrastructures, adding to the demand for NDT technicians.” Based on the U.S. Department of Labor statistics, an estimated shortage of 11,500 NDT vacancies are forecasted throughout the United States over the next 8 years. Regionally FURMNANITE employment projections indicate that up to 1,000 new NDT inspectors will be needed to address the petrochemical expansion located in Southwest Louisiana and east Texas region alones, making access to regional NDT training resources critical to the petrochemical industry as a whole.

Non-Destructive Testing (NDT) Technicians examine and test the physical properties of materials and components to find possible corrosion, cracks, flaws and other imperfections which could affect their performance and reliability without damaging the structure of the object being tested. SOWELA proposes to partner with FURMANITE in both the development and

delivery of short-term compressed modular training. Students who complete the didactic portion of the training will then be afforded on the job training (OJT) in order to acquire the mandatory hands-on component of each industry based certificate. The combination of didactic instruction along with OJT offered in such close collaboration with FURMANITE aligns perfectly with the focus of Rapid Response funding. This initiative will provide focused modular training *to local residents* that lead to expedited employment opportunities for an industry in desperate need of a well-trained workforce.

Funding Level I, Level II and Level III Non-Destructive Testing programs at SOWELA Technical Community College is absolutely critical to the region's economy. Whether it is a welded pipe in the expanding 65 billion dollar petrochemical industry or the fixing of aluminum skin on an aircraft frame, every weld or connection must be inspected by a Non-Destructive Testing Inspector. Currently there is a severe shortage of Non-Destructive Testing Inspectors to build the region's economy which is why Non-Destructive Testing is a Tier 1 career.

General Timeline

<p style="text-align: center;">Louisiana Community and Technical College System <i>Timeline of Events for WISE – Fiscal Year 2014-15</i> <i>Metrics of the grant must be quantified on Metrics Summary.</i></p>			
Event or Activity	Description	When Event will Take Place	Person(s) Responsible
Initiate Program	Receive notification of funding award and load budget	First Day	Workforce Development Director and Controller
Advertise for Faculty	Search for and identify one qualified NDT instructor	First Month of Grant	Workforce Development Director and Human Resources
Procure Equipment	Identify vendor and purchase equipment	First Month of Grant	Business Office
Recruit Students	Advertise and solicit students for the non-credit program	First Month of Grant	Industry/community partners, Workforce Development
Hire Instructors	Make offers and hire one qualified instructor	First Month of Grant	Human Resources
Order Supplies	Requisition expendables needed for first classes	First Month of Grant	Instructor
Receive Materials	Receive equipment and supplies	Second Month of Grant	Business Office and Instructor

Louisiana Community and Technical College System
Timeline of Events for WISE – Fiscal Year 2014-15
Metrics of the grant must be quantified on Metrics Summary.

Event or Activity	Description	When Event will Take Place	Person(s) Responsible
Enroll Students	Register and enroll students for courses	Second Month of Grant	Admissions, Instructor, Registrar
Start Classes	Initiate instruction	Second Month of Grant	Instructor
Complete Semester	End instruction and evaluate learning outcomes	Twelfth Month of Grant	Workforce Development Director and Instructor
Throughout the one year funding cycle, non-credit training will occur. Therefore the timetable outlined above will be repeated as many times as is possible.			
Report Outcomes	Report on attainment of goals, metrics, and performance measures	Twelfth Month of the Grant	Workforce Development Director

Metrics

SOWELA will institute a Non-Destructive Testing Program in order to meet the needs of both the petrochemical and aviation sectors. Over the next 12 months enrollment is estimated at approximately 150 students.

- 120 unduplicated completers
 - Credential earned: Industry Based Credential (IBC)

Performance Measures

The expected completion and placement rates for this program are as follows.

1. 80% of students enrolled will successfully complete the program.
2. 90% of all students who complete the program will obtain a national NDT credential.
3. 90% of all students who obtain an NDT credential will obtain employment within 1 year.
4. In total 120 unduplicated students will complete NDT training.

Budget Narrative

Salaries/Related Benefits **\$ 127,800**

2 full-time NDT Instructors Salaries \$ 90,000

Up to two full-time faculty will be hired to deliver non-destructive testing didactic instruction.

Related benefits are calculated at 42% \$ 37,800

Equipment **\$ 172,725**

*Note: Pricing represents unit cost.

Combination 0"-10" Dial/Pit Depth Gauge (50) (\$300); Bridge Cam Gauge (8) (\$125); Misc. Weld gauges (99) (\$75); Thickness Gauges Ultrasonic Stress Meter (5) (\$1,000); Thickness Gauges - High end tester (5) (\$1,800), Betagage B-Scan (5) (\$2,500); Sonatest Sitescan 150 (5) (\$8,100); Sonatest Masterscan380 Ultrasonic Flaw Detectors (1) (\$9,900) Solvent Removable (9) (\$100); Water Wash (1) (\$20,000); Bench (5) (\$10,000); Yoke (3) (\$500)

Supplies **\$ 11,275**

Magnetic Particle / Liquid Penetrant Testing Kit (3) (\$1,630); Standard UT Kit (Ultrasonic Testing) (2) (\$2,375); Visual Testing Kit (VT Kit) (1) (\$1,635)

Outreach (Instructor Recruitment) 5% **\$ 3,138**

SOWELA will recruit a certified Non-Destructive Testing instructor to teach day and/or evening courses.

Travel **\$ 2,000**

Travel for one instructor to attend The American Society for Non-Destructive Testing Annual Conference or one other professional development conference.

Total Funds Requested **\$316,938**

Lab Analyst-Tier 1
SOC-19-4031
Dollar amount requested \$146,550

Executive Summary

Purpose of the Grant

The need for Chemical Technician (Lab Analyst) will continue to increase as automation, new technology, products, and multifaceted production processes become more sophisticated throughout the petrochemical sectors. As of May 2013, Louisiana ranks as one of the primary leaders in the United States regarding the employment of Chemical Technicians.

SOWELA Technical Community College is committed to serving the educational and training needs of Southwest Louisiana in building a 21st century workforce. In collaboration with regional and state partners, SOWELA is partnering with business and industry to gain constructive feedback during the development of the Lab Analyst program to better serve the analytical training needs of local industry. The primary focus of the program will target areas of industrial laboratory analytics ranging from environmental to production quality and research. The WISE funds requested will be used to implement a new Lab Analyst program, which will prepare and equip students towards the Lab Analyst field. This program will be implemented initially as a preparatory short term program with plans to evolve into a two-year Lab Analyst Associates of Applied Science degree as identified through the Louisiana Board of Regents Academic Policy.

The creation and establishment of the Lab Analyst program will enable SOWELA Technical Community College to meet the needs of the petro chemical industry expansion in southwest Louisiana.

General Timeline

<i>Louisiana Community and Technical College System</i> <i>Timeline of Events for Rapid Response – Fiscal Year 2014-15</i> <i>Metrics of the grant must be quantified on Metrics Summary.</i>			
Event or Activity	Description	When Event will Take Place	Person(s) Responsible
Contract Consultant	Identify and contract consultant for professional services	First month of grant	Program Chair & Human Resources
Plan Program Implementation	Plan purchase of equipment and supplies for implementing program	Second month of grant	Program Chair and Consultant
Advertise for Faculty	Search for and identify a qualified Lab Analyst Instructor	Second month of grant	Program Chair & Human Resources

Evaluate Instructor Applicants	Recruit, Interview, and Evaluate Instructor Applicants	Second month of grant	Program Chair & Human Resources
Hire Instructor	Hire full-time Lab Analyst instructor	Second month of grant	Human Resources
Purchase Initial Supplies and Equipment	Submit requisitions for equipment and supplies needed	Third month of grant	Program Chair, Industrial Technology Lab Coordinator, and Consultant
Begin Course Offerings	Begin offering classes for the Lab Analyst Program	Third month of grant	Program Chair, Instructor, & Office of the Registrar
Report	Report on the Attainment of goals	Third month of the grant	Program Chair and Instructor
Purchase Any Remaining Supplies and Equipment	Submit requisitions for equipment and supplies needed	Sixth month of grant	Program Chair, Industrial Technology Lab Coordinator, and Consultant
Report	Report on the Attainment of goals	Sixth month of the grant	Program Chair and Instructor
Report	Report on the Attainment of goals	Ninth month of the grant	Program Chair and Instructor
Report	Report on the Attainment of goals	Twelfth month of the grant	Program Chair and Instructor

Metrics

SOWELA will implement the Lab Analyst training program in order to meet the specific and immediate needs of the petro-chemical industry in southwest Louisiana. SOWELA will enroll an estimated 75 unduplicated students per year. Students who complete the program will receive an Industry Based Credential.

Performances Measures

The expected completion rates for this program are as follows.

1. 80% of students enrolled will successfully complete the program.
2. In total 60 students will complete the Lab Analyst program.

Budget Narrative

Employee Salaries/Related Benefits \$ 78,100

1 full-time Lab Analyst Instructor \$ 55,000

The grant will fund 1 full-time Lab Analyst instructor to deliver industry specific instruction leading to an Industry Based Credential (IBC).

Related benefits are calculated at 42% \$ 23,100

Professional Services/Contracted Services \$ 5,000

Consulting from subject matter experts for curriculum development, program structure, and necessary lab equipment and supplies to support the Lab Analyst program implementation =

Equipment \$ 45,000

*Note: Pricing represents unit cost.

Vo Volumetric pipettes 1, 5, 10 mL (90) (\$19.00); graduated pipettes 5,10 mL (60) (\$17.00) beakers 100, 250, 500, 1000 mL (120) (\$18.00); graduated cylinders 10, 25, 50 mL (60)(\$20.00) volumetric flasks 50, 100, 250, 500, 1000, 2000 (240)(\$10.00); burettes 10, 25, 50 mL at 10 each(30)(\$65.00); thermometers F/C (60)(\$40.00); separatory funnels (30) (\$60.00); micro syringes 10 microliter(40)(\$30.00); buchner funnel (15)(\$70.00); desiccator(15)(\$78.00); hydrometers (30)(\$32.00); beaker tongs(30)(\$15.00); buret stands (30)(\$50.00); bottle brushes(30)(\$16.00); glassware drying rack(15)(\$45.00); Erlenmeyer flasks 125 mL, 250 mL, 1 L, 2L (80)(\$24.00); flint lighter (10)(\$9.00); assorted plastic funnels(20) (\$19.00); fisher burners(10)(\$119.00); pH meters(10)(\$117.00); ring stands(20)(\$28.00); rings with clamps (20)(\$29.00); rubber policeman (30)(\$22.00); calculators(30)(\$49.00);labcoats (30)(\$38.00); laboratory scale/balance (6)(\$1,150.00); chemical storage cabinet (4)(\$850.00);laptop with docking station & monitor (1)(\$2,400.00);stapler(1)(\$19.00); dispenser(1)(\$16.00)office phone(1)(\$500.00); printer(1) (\$480.00)

Supplies \$ 12,000

Safety glasses at 120; goggles at 30; face shields at 30; ear plugs at 6 boxes; gloves at 6 boxes; assorted pipettes at 25 boxes; plastic eye droppers at 10 boxes; plastic graduated cylinders at 6 boxes; wash bottles at 20; stirring rods at 100; pipet bulbs at 100; Kimwipes at 20 boxes; Buchner funnel filter paper at 10 boxes; assorted rubber stoppers at 100; distilled water at 50 gallons; vacuum grease at 2 boxes; reagent indicators; assorted drying agents; Mineral oil; assorted acid and base solutions; assorted solvents; desiccant drying agent; boiling chips; glass tubing assortment; laboratory cleaning supplies; paper; ink; binders; folders; notepads; batteries; writing utensils; staples; and

additional office supplies as needed to furnish and maintain instructional needs

Travel **\$ 5,000**

Travel for two faculty members to attend Brazosport College, St. Louis Community college, and/or IVY Tech Community College for best practices

Outreach (instructor Recruitment 5% **\$ 1,450**

Recruitment costs for hiring a full time Lab Analyst instructor

Total Funds: **\$ 146,550**

Process Technology
Plant Operators Tier One SOC-51-8091
Dollar amount requested \$274,880

Executive Summary

Purpose of the Grant

Process Technicians, better known as Plant Operators, hold positions with responsibilities primarily focused in areas of industrial processing and operations. This field is in high demand and has been identified as a Tier 1 job (51-8091 – Chemical Plant and System Operators; 51-8092 Petroleum Pump System Operators, Refinery Operators, and Gaugers; 51-8093 Gas Plant Operators) that will continue to grow as a high skill/high demand occupational area.

The five parish (Allen, Beauregard, Calcasieu, Cameron and Jeff Davis) region of Southwest Louisiana (SWLA), also known as the Lake Charles Metropolitan Service Area (MSA), contains a major industrial base that consists of chemical, petrochemical, and natural gas. The natural gas industries in the Lake Charles region have announced expansion projects over the next 3-5 years that total in excess of 74 billion dollars. Cheniere Energy, Sasol, G2X, Magnolia, Sempra, Axiall, and Juniper GTL have announced that they will be expanding their petrochemical operations by building new facilities in the Lake Charles MSA. Cheniere Energy was given the go-ahead by federal regulatory agencies to convert their existing Sabine Pass import terminal in Cameron Parish, into an export facility. Sasol has selected Southwest Louisiana as the location for its Gas to Liquid (GTL) complex; the first of its kind built in the United States. GTL construction has already begun on the Cheniere expansion project. Additionally, incumbent industries have announced billions of dollars in capital improvement projects. This will increase the demand for thousands of additional employees of which industry has identified process technicians as being one of those high skilled/high demand occupations.

According to a survey conducted by the Lake Area Industrial Alliance in 2013, between 225 - 275 operators per year will be needed beginning in 2014. This increase in Process Technicians is due to the baby boomer generation retiring and due to the expansions mentioned above. Prior to Fall 2013, the Process Technology program at SOWELA graduated approximately 100 students per year. Currently the Process Technology program is anticipating graduating 130 in year 2014 due to the 85% increase in enrollment from Fall 2012 to Fall 2013 and continued increased enrollment in 2014.

The companies that make up the Lake Area Industry Alliance currently require an Associates of Applied Science degree (A.A.S.) in Process Technology as the entrance credential for process operator positions; therefore, increasing the number of graduates in Process Technology directly a total of \$28.9 million over the next five years, which will benefit the local economy and the state as a whole increases the pool of potential employees with the necessary industry based

certification. The additional graduates, 50 per year from the proposed fast track Process Technology program along with 130 per year each year thereafter, will bring SOWELA closer to meeting the demand of local industry and have a significant economic impact on our region.

SOWELA Technical Community College continues to explore innovative training methods to effectively prepare and meet the demands of the local workforce. As a result, SOWELA will be expanding its reach to the Instructional Service Center in Deridder, Louisiana. The Instructional Service Center is an additional training pathway demonstrating SOWELA's efforts to reach additional areas to offer introductory Process Technology courses targeting the local populace, including the individuals connected with the Fort Polk United States Army base. This program will act as a feeder program into the Process Technology program offered at SOWELA's main campus. Once the introductory courses have been offered and established at the Deridder site, additional courses to complete the A.A.S. degree will be considered.

Another innovative strategy that SOWELA is pursuing is an advanced content delivery method using a creative technology known as Augmented Reality. This technology will incorporate an enhanced delivery strategy by implementing Augmented Reality (digital overlay of real-time imagery) training instruction. SOWELA will partner with a consulting group that will provide: consulting, training, application development, software licensing, content integration, 3-dimensional modeling and content creation, project management, testing as well as hosting of content if needed. Wearable displays along with portable smart devices will be used to display the Augmented Reality content. The wearable displays will act as personal protective equipment for the eyes of the student. These displays will also connect to stored data and individually created content for real-time delivery of animated, still, and/or 3-dimensional content for an enhanced learning experience like never before. SOWELA will begin the implementation phase of the Augmented Reality content delivery to initially include the Fast Track students. Once the delivery methods and strategies have been optimized then SOWELA will plan to extend this technology to all Process Technology students within the first year.

Additional instructors and equipment will be needed in response to implementing and enhancing innovative training in the Process Technology two year and Fast Track program, which is aimed at offering a compressed version of Process Technology courses for the Process Technology A.A.S. The funds that are being requested will fund one instructor that will travel back and forth between the Deridder Instructional site to SOWELA's main campus. This instructor will be needed to teach the courses in Deridder along with courses at SOWELA's main campus due to additional courses offered in connection with the Process Technology Fast Track program. Additional equipment is needed to help with the necessary hands-on process training that will be provided at the Deridder Instructional site as well.

SOWELA Technical Community College is committed to serving the educational and training needs of Southwest Louisiana in building a 21st century workforce. In collaboration with regional and state partners, SOWELA will expand and enhance its Process Technology Program to meet the operational needs of local industry.

In summary, the requested funds will be used to implement additional hands-on training equipment, implement innovative content delivery for training, and increase its faculty to accommodate the growing needs at SOWELA’s main campus and also at Instructional Service Center in Deridder, Louisiana.

General Timeline

<p style="text-align: center;"><i>Louisiana Community and Technical College System Timeline of Events for WISE Fund – Fiscal Year 2014-15 Metrics of the grant must be quantified on Metrics Summary.</i></p>			
Event or Activity	Description	When Event will Take Place	Person(s) Responsible
Plan Program Implementations	Plan purchase of equipment and supplies for implementing Deridder classes and Augmented Reality	First month of grant	Program Chair and Instructors
Advertise for Faculty	Search for and identify a qualified Process Technology Instructor	Second month of grant	Program Chair & Human Resources
Evaluate Instructor Applicants	Recruit, Interview, and Evaluate Instructor Applicants	Second month of grant	Program Chair & Human Resources
Hire Instructor	Hire full-time Process Technology Instructor	Second month of grant	Human Resources
Contract Consultant	Contract consultant for professional services	Second month of grant	Program Chair & Human Resources
Evaluate Instructor Applicants	Recruit, Interview, and Evaluate Instructor Applicants	Second month of grant	Program Chair & Human Resources
Purchase Training Equipment	Submit requisitions	Third month of grant	Program Chair, Industrial Technology Lab Coordinator & Business Office
Purchase Supplies and Equipment	Submit requisitions for equipment and supplies needed	Third month of grant	Program Chair, Industrial Technology Lab Coordinator & Business Office
Content Creation	Work with Consulting group to Create Augmented Reality content	Third month of grant	Program Chair, Industrial Technology Lab Coordinator, Instructors, & IT Department
Report	Report on the Attainment of goals	Third month of the grant	Program Chair and Instructor

Implement Content Delivery	Implement content delivery strategies & applications	Fourth month of grant	Program Chair, Industrial Technology Lab Coordinator, Instructors, & IT Department
Receive Training Equipment	Receive, finalize setup, and begin utilizing Process Trainer	Fifth month of grant	Department Chair, Industrial Technology Lab Coordinator, Instructors, & Director of Facilities
Purchase Any Remaining Supplies and Equipment	Submit requisitions for equipment and supplies needed	Sixth month of grant	Program Chair, Industrial Technology Lab Coordinator, and Consultant
Report	Report on the Attainment of goals	Sixth month of the grant	Program Chair and Instructor
Report	Report on the Attainment of goals	Ninth month of the grant	Program Chair and Instructor
Report	Report on the Attainment of goals	Twelfth month of the grant	Program Chair and Instructor

Metrics

SOWELA will expand its Process Technology training program and equipment in order to meet the specific and immediate needs of the processing industry in southwest Louisiana. An anticipated 75 unduplicated students per year will enroll in the enhanced Process Technology program.

Performances Measures

The expected completion and placement rates for this program are as follows.

1. 90 percent of students enrolled will successfully complete the program.
2. 90 percent of all students who complete the program will obtain employment.
3. In total 70 unduplicated students will complete the above program with an Associate Degree.

Budget Narrative

Employee Salaries/Related Benefits **\$ 78,100**

One full-time PTEC instructor \$ 55,000

One full-time P-TEC instructors will be hired to deliver instruction which leads to an Associate's degree in Process Technology.

Related Benefits are calculated at 42% \$ 23,100

Professional Services/Contracted Services **\$ 96,000**

Augmented Reality implementation consulting, training, application development, software licensing, content integration, 3-dimensional modeling and content creation, project management, testing as well as hosting of content if needed provided by consulting group

*Note: Pricing represents unit cost. Equipment may vary due to availability or technology advances.

Equipment **\$ 81,000**

iPad (20) (\$770.00);iTouch (8)(\$290.00);Epson BT-200 (15)(\$925.00)
Google Glass(20)(\$1,560.00) Cutaway Valve(1)(\$2,500.00)Cutaway
Pump(1)(\$3,500.00) Cutaway Compressor(1)(\$2,800.00) Process Training
Unit (1)(\$6,000.00)laptop with docking station &Monitor(1)(\$2,400.00);
stapler(1)(\$19.00); dispenser(1)(\$16.00); office phone(1)(\$490.00); printer(1)
(\$480.00)

Supplies **\$ 8,000**

Personal protective equipment (e.g. safety glasses, ear plugs, gloves, etc.)
laboratory testing agents, laboratory cleaning supplies, paper, ink, binders,
folders, notepads, batteries, writing utensils combine supplies
Supplies to initially furnish and maintain an efficient level of instruction
regarding the courses offered at Deridder Louisiana site for PTEC instruction
in the classroom, office, and in the laboratory areas such as personal
protective equipment (e.g. safety glasses, ear plugs, gloves, etc.) laboratory
testing agents, laboratory cleaning supplies, paper, ink, binders, folders,
notepads, batteries, writing utensils, and additional office supplies as needed
to furnish and maintain instructional needs

Travel **\$ 11,780**

Travel for two (2) faculty members to attend AWE Augmented Reality
Conference in Santa Clara, California for best practices of integrating
Technology into hands-on operational processing instruction and travel to and
from Derider.

Total Funds **\$ 274,880**

LOUISIANA COMMUNITY AND TECHNICAL COLLEGE SYSTEM
ONE PLAN - Workforce and Innovation for a Stronger Economy Fund
Original Budget - FY 2015

College Name: SOWELA Technical Community College
 Contact: William Mayo/David Lafargue
 Address (Street): 3820 Senator J. Bennett Johnston Avenue
 Address (City, State): Lake Charles Louisiana 70615
 Grant Title (or Name/Type): WISE Fund - Fiscal Year 2014-15

Line Number	Object Code Category	(A) Original Budget
1	Employee Salaries (Instructor, Coordinator, etc.)	\$ 404,200.00
2	Related Employee Benefits	\$ 168,150.00
3	Professional Services or Contracted Services	\$ 101,000.00
4	Operating Services	\$ 70,000.00
5	Equipment or Property Acquisitions	\$ 630,095.00
6	Supplies	\$ 67,935.00
7	Travel	\$ 18,780.00
8	Outreach (Not to Exceed Maximum of 5%)	\$ 35,813.00
9	Administration (Not to Exceed Maximum of 5%)	\$ 31,225.00
10	Any Other Charges (Explained in Budget Narrative)	\$ -
11	GRAND TOTAL	\$ 1,527,198.00

Grantee Information: *I certify to the best of my knowledge and belief that the information indicated on this is accurate for this grant.*

Neil Aspinwall Chancellor		Jeanine Newman, Vice Chancellor for Finance	
			
Signature	Date	Signature	Date
337421-6902	337-491-2610	337421-6915	337-491-2017
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