

Occupational Safety, Health, and Environment (OSH&E) Program Department of Computer Science and Industrial Technology Southeastern Louisiana University SLU 10847 Hammond, LA 70402

July 23, 2014

Dear OSH&E Advisory Committee Member,

On behalf of Southeastern Occupational Safety, Health, and Environment (OSH&E) Program, we would like to give our sincere appreciation to you for your involvement in the OSH&E Advisory Committee as well as your participation in the meetings and discussion.

Enclosed please find the report of the joint meeting between our OSH&E Advisory Committee and GBRIA Safety, Health, and Security Committee that was held on April 23, 2014 at the Southeastern School of Nursing Baton Rouge Center. Please feel free to let us know should you have any questions and comments!

Our first meeting for the upcoming 2014-2015 academic year will be held as part of the Annual Departmental Advisory Committee Meeting. The meeting is usually scheduled sometime in October on the Hammond campus. A formal invitation will be sent to you when the meeting date and venue are confirmed.

Thank you very much for your continued contribution to the program!

Sincerely,

Dr. Lu Yuan

Associate Professor &

Coordinator

Ms. Dorinda Folse

OSH&E AC Chairperson

Mr. Lance Roux

OSH&E AC Co-Chairperson

OSH&E Advisory Committee and GBRIA Safety, Health, and Security Committee April 23, 2014 Joint Meeting Report by Dr. Ephraim Massawe, Ms. Dorinda Folse and Mr. AJ Downing

The joint meeting between Occupational Safety, Health, and Environment (OSH&E) Advisory Committee and GBRIA (Greater Baton Rouge Industry Alliance) Safety, Health, and Security Committee was held from 11:00 AM to 1:00 PM on April 23, 2014 at the Southeastern School of Nursing Baton Rouge Center. The attendees include nine of the twenty OSH&E Advisory Committee members (**Appendix A** with update-to-date contact information). Dr. Ephraim Massawe and Mrs. Amanda Brown, the two full-time faculty members of the OSH&E program, were co-hosts of the meeting. Dr. Lu Yuan, the OSH&E Coordinator, was not able to attend the meeting due to family emergency. One OSH&E student, AJ Downing, was present. Absent were Richard Matherne, Wayne LaCombe, James Kerr, Dawn Bahm, Lance Roux, David Noland, Buddy Mincey Jr., Michael Page, Paul Higdon, Donny Latiolais, and Andy Kovacs.

Appendix B contains the agenda of the meeting.

1. Introduction and Overview

This was the first joint meeting held between Southeastern Louisiana University's OSH&E Advisory Committee and GBRIA Safety, Health, and Security Committee. The main goal of the meeting was to enhance the collaborative activities between GBRIA and Southeastern's OSH&E program. This meeting would help the two institutions to develop strategies and action plans to better the southeast Louisiana through providing well qualified OSH&E graduates to serve in the region, and particularly for potential employers who are members of the GBRIA.

Welcome remarks by Dr. Ephraim Massawe: Ephraim thanked every person for their time, devotion and involvement in OSH&E Advisory Committee and GBRIA Safety, Health, and Security Committee. Ephraim underscored the progress made by the OSH&E Advisory Committee which has created a vibrant curriculum to address the current and future needs of employers in our region, and by joining together with the GBRIA Safety, Health, and Security Committee, this task will be much easier to carry on. Similarly, the OSH&E Advisory Committee Meeting could also advise and consult with GBRIA to advance GBRIA's mission and plans. Ephraim stated that this was the first joint meeting of its kind between OSH&E Advisory Committee and GBRIA Safety, Health, and Security Committee. He hoped that a series of similar joint meetings will be held in the future. Ephraim then invited Ms. Dorinda Folse to give official remarks.

<u>Remarks by Ms. Dorinda Folse:</u> The following remarks were made by Ms. Dorinda Folse, OSH&E Advisory Committee Chairperson and OSHA Baton Rouge Area Office Director.

Although OSHA (the agency) has significantly improved workplace safety and health over the last thirty or forty years or so of the agency's existence, there is still a lot that we need to do as safety and health professionals to ensure that men and women who go out to work in the morning, indeed can come or go back to their respective homes healthy and safe!

- > Safety problems are more obvious than health (industrial hygiene) issues we need more sophistication in terms of technology and training in approaching the latter.
- She asked members to remember that April 28th is the day which supports the "save lives" initiative! It is a Workers' Memorial Day! She asked the plants, other workplaces, and the safety and health professionals to use this day to reflect and remember those workers who have lost lives while on the job. She also included that there have been 20 recent fatalities that are being investigated by her Office, with an increase in "struck by" incidents.
- > She emphasized the need for regular meeting as professionals, and to create a concrete strategy to get the word out and reach out to people we are trying to save their health and lives.
- > She asked employers to be more vigilant about staying abreast of the health standards, like lead, asbestos and now the revised HazCom standard.

2. OSH&E Past, Present, and Future by Dr. Lu Yuan

Ephraim presented an overview of the OSH&E program based on the PowerPoint slides which were prepared by Lu in advance (**Appendix C**). Ephraim also used the PowerPoint slides of the Department of Computer Science & Industrial Technology prepared by Dr. Sebastian van Delden (**Appendix D**) to make comparison between the OSH&E program and the other programs in terms of the enrollment and the graduation rates. The discussion after Ephraim's presentation focused on the following key issues:

- Members discussed the need for better marketing of internship / co-op programs
- ➤ Better utilization of job fairs/career fairs to recruit participation of internship / co-op programs
- > Publicize the need for scholarships
- ➤ Think about introducing the concept of Occupational Safety and Health as an occupation to younger students ...get them thinking early about Safety and Health as a career option
- > There was a concern that the OSH&E program needs to think about the Systems Integration
- ➤ Use the Southeastern Graphic Art Department to help develop marketing tools. Incorporate a summary of Dr. Yuan's slide to create a very concise document for promoting the program. Suggestion from industry would be to highlight some past graduates who are now working in key positions to use in this promotion as well.

3. OSH&E Current Needs and Projected Requirements by Dr. Ephraim Massawe

Ephraim presented the Industrial Hygiene Equipment Needs for the OSH&E program (**Appendix E**). The discussion that ensued focused on the following key issues:

➤ Compile a list of the IH equipment and instrumentation requirements and make known via University website. This way industry with equipment for donation will know where and who to contact at the University.

- Ask industry to purchase equipment / donate equipment. Example was given to ask vendors such as 3M, Draeger, etc... to donate or give substantial reduction in price on equipment purchase.
- Equipment donation by industry could be recognized by university in naming a lab or labs after donator, for example.
- > Sell the concept to business /industries that the benefit of their investment will be returned with graduates who are ready to hit the market in the next few years when there are projected to be billions of dollars of work ongoing.
- ➤ Use the Southeastern CSIT Department to help develop a "giving website" or "online campaign" for advertising the need for specific equipment and to be used by donators so that even if they could not purchase a \$3000 piece of equipment they could donate what they could. There could be a running total that showed percentage or amounts. This would allow split of costs.

The following was a general discussion about the OSH&E program. Some comments came from representatives of the industry about what they want to see from graduates:

- New graduates need to have interpersonal skills to deal with all level of workers.
- > Graduates need to have good writing skills.
- > Graduates need to understand that everything cannot be electronic.
- ➤ Proposal that the university considers an emphasis on Construction Management that focuses on industrial construction. The LSU Construction Management degree graduates students who know only commercial construction.
- > Graduates need to have a clear understanding between difference in operational safety and construction safety.
- ➤ Graduates should be able to read construction schedules if they are going to work in construction field. If working in plants, graduates should at the minimum be able to read P & IDs (process and instrumentation diagrams).
- ➤ It was stated by David Mihalik, EHS Hub Director of BASF, that it is important for students to learn that there is not always a defined line separating "General Industry" (1910) and "Construction" (1926). Many times within the workforce, the student will have to clearly understand the differences and when they apply. Others in attendance supported his comments and suggested the information be included within the curriculum.

4. Mutual Initiatives between the Two Committees

- ➤ GBRIA would be given opportunity and participate with input on curriculum development through the OSH&E Advisory Committee
- > GBRIA to approach their membership about equipment donation
- ➤ GBRIA to publicize need for internships and co-ops
- > GBRIA to publicize need for additional scholarships and funding for existing scholarships
- ➤ GBRIA to publicize need for adjunct professors at Southeastern
- ➤ GBRIA nominated Bob Brady to participate on the OSH&E Advisory Committee as industry representative for Environmental concerns regarding the OSH&E curriculum. He accepted and indicated he may be able to recruit other industry representatives.

- ➤ June 12th is GBRIA's annual meeting and this year the theme is on safety. Maybe this would be an opportunity to begin the conversation.
- ➤ GBRIA also included information on "the safety fundamentals for hydroblasting." Descriptive handouts were provided to each in attendance for better understanding.

The meeting adjourned at 1 PM. We cordially appreciate GBRIA for sponsoring the lunch.

Appendix A **OSH&E Advisory Committee**

Members

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5

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Appendix B Joint Meeting between OSH&E Advisory Committee and GBRIA SHS Committee

Agenda April 23, 2014

<u>Time</u>	<u>Issues</u>	<u>Actions</u>
11:00 - 11:15 am	Welcome & Introduction (By Ms. Dorinda Folse, Mr. Tom Yura, and Mr. Tim Harris)	
11:15 - 11:45 am	OSH&E Program	
	1. OSH&E Development (By Dr. Lu Yuan)	
	2. OSH&E Needs and Collaborations (By Dr. Ephraim Massawe)	
11:45 am - 12:15 pm	Lunch (Courtesy of GBRIA)	
12:15 - 12:30 pm	GBRIA SHS Committee Responsibilities, Events and Activities (By Mr. Tom Yura and Mr. Tim Harris)	
12:30 - 1:00 pm	Mutual Initiatives between the Two Committee	ees





OSH&E Past, Present, and Future

By Lu Yuan, Sc.D., CSP
Associate Professor & Coordinator
Occupational Safety, Health, and Environment (OSH&E)
Department of Computer Science and Industrial Technology
Southeastern Louisiana University

OSH&E Past

- 1996 Two-year Associate of Applied Science degree in Industrial Technology with a concentration in Occupational Safety and Health.
- The Greater Baton Rouge Industrial Managers'
 Association (GBRMIA), now Greater Baton Rouge
 Industry Alliance (GBRIA) approached the
 Department of Industrial Technology at
 Southeastern with a proposal to start an
 academic program in safety.



OSH&E Past

- 2001 Four-year Bachelor of Science in OSH&E proposed to the LA Board of Regents.
- 2004 The LA Board of Regents approved the establishment of the new program in early 2004, and the program was officially implemented in the Fall of 2004.
- 2006 The first four OSH&E BS graduates in Spring 2006.



OSH&E Past

- 2008 Several important changes in the curriculum completed in the Fall of 2008.
- 2010 ABET (Accreditation Board for Engineering and Technology) site visit took place in the Fall of 2010.
- 2011 Received full accreditation by ABET and became only the third Environmental, Health, and Safety, and similarly named program accredited by ABET Applied Science Accreditation Commission.



OSH&E Present

- A total of 83 OSH&E BS graduates (not including 13 Spring 2014 graduate candidates)
- In the Fall of 2013, BCSP completed the evaluation of the OSH&E program for continuation as a Qualified Academic Program (QAP) for the BCSP GSP (Graduate Safety Practitioner) designation and determined that the OSH&E program has sufficient overlap with their Associate Safety Professional (ASP) blueprint and the OSH&E program was among the QAPs with the highest scores.
- Southeastern expands OSH&E program with new minors
 http://www.southeastern.edu/news media/news releases/2014/march/oshe minors.html
- SLU adds three minors to degree program
 http://www.theadvocate.com/news/livingston/8676459-123/slu-adds-3-minors-to



OSH&E Future

- Favorable: A new building for the Department of CSIT including the OSH&E program will be built. The building will have two dedicated OSH&E labs including Industrial Hygiene and Fire Protection Lab and Ergonomics Lab.
- More faculty and adjunct instructors needed
- OSH&E Master's of Science Degree



OSH&E Advisory Committee

- Southeastern's OSH&E Program Industrial Advisory Committee (IAC) consists of representatives from industry, government agencies, and professional safety, health, and environmental organizations from the greater New Orleans/Baton Rouge area. They meet regularly with Southeastern OSH&E faculty and administration to provide:
 - Feedback on the effectiveness of the program in providing quality graduates to fill OSH&E positions in the area workforce;
 - Advice on curriculum development to assure that the degree program maintains relevancy and meets the needs of area employers;
 - Contact and coordination with area employers for program support in including, but not limited to: internships, plant field trips, guest speakers, equipment acquisition, scholarships, etc.;
 - Assistance in preparation for program accreditation through ABET.

 SOUTHEASTERN

SLU adds 3 minors to degree programs

Advocate staff report April 03, 2014 **0 COMMENTS**

Southeastern Louisiana University is expanding its occupational, safety, health and environment program to include three new minors to complement existing degree programs and help meet employment needs in the area's workforce.

Sebastian van Delden, head of the Department of Computer Science and Industrial Technology, said the new programs will start in the fall semester.

The programs include minors in diverse areas of the OSH&E discipline: safety, health and environment.

Van Delden said the safety minor includes coursework on laws and regulations, construction and chemical safety, product and system safety, fire protection and prevention, and behavioral aspects of safety.

The health minor addresses ergonomics, industrial hygiene and toxicology.

The environment program covers environmental laws and regulations, hazardous materials management and pollution control technology.

SLU's OSH&E bachelor's degree is one of only a few of its kind in the nation, a university spokesman said in a news release. The program is accredited by the Applied Science Accreditation Commission of ABET Inc., the international accrediting agency for these programs.

Initiated in 2004 from a two-year associate degree program, the OSH&E degree was created to meet the needs of industries in the region for properly prepared professionals to work in the increasingly complex field of safety and health in the industrial setting, van Delden said.

Lu Yuan, associate professor and OSH&E program coordinator, said students who graduate with the OSH&E degree automatically earn the designation of graduate safety practitioner, a gateway to earning the safety professional certification.

"OSH&E graduates are in high demand in south Louisiana because of our highly industrialized business sector," Yuan said. "Last year, 14 of our 15 graduates secured employment in their field of study within one month of graduation."

SLU graduate Shaine Babineaux, associate safety engineer with Valero Energy Corp., said the program provided him with the resources he

14

7/30/2014 12:06 AM

SLU graduate Shaine Babineaux, associate safety engineer with Valero Energy Corp., said the program provided him with the resources he needed to develop aptitude in the safety field.

"The knowledge I gained from this program is essential to my current job position and has helped in the development of my professional career," Babineaux said.

"The OSH&E program is growing faster than we originally predicted, with 120 students currently in the major," van Delden added.

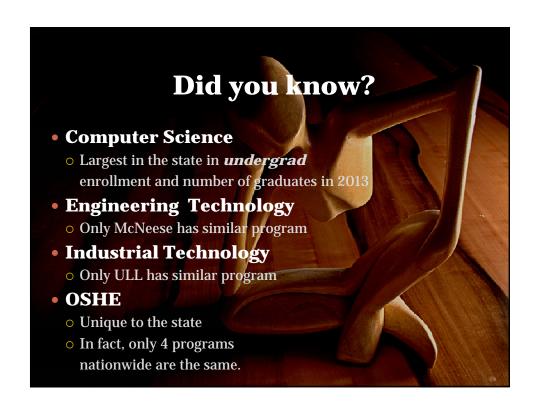
"The demand for these graduates will persist for the foreseeable future, and Southeastern is poised to fill this crucial workforce demand of the industries in the region," he said.

The program has caught the eye of industry professionals trying to keep up with the demand for qualified employees.

"Louisiana is currently experiencing the biggest industrial building boom since the 1980s, and there is a huge need for educated safety personnel to help keep workers safe," said Lance Roux, a certified safety professional and principal consultant at SafetyPro Resources, a Baton Rouge consulting firm.

"Southeastern offering a minor in OSH&E is an excellent way to help develop safety expertise in our state," he added. "It's a win-win for both students and industry."







Basic Business Model & Mission Strategies

Graduates are our Products; Employers are our Customers

Recruiting

• Camps, Scholarships, K-12 Visits, campus visits, dual enrollment, other recruiting.

Education

 High academic standards in course work, quality over quantity, engaging undergraduate research, Senior Projects, and hiring the "right" faculty.

Career

• Internships, Student Organizations, Tech-Connect, Industry Partnerships, and Others.

Challenges and High Priority Needs

State Support cut to approx 29%



• Support to implement holistic recruiting strategy: travel money, time reallocation, equipment, scholarships, new building.

Education

Need to hire additional faculty, new building/equipment

Career

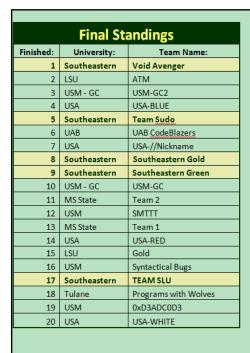
Expand Industry connections and regional awareness.

Computer Science

- Graduates are solid programmers who have good communication skills.
- ACM Club, the .NET User Group, Women In Technology (WIT) – guest speakers every month.
- Recent Highlights
 - o Pre-MBA
 - o ACE
 - *** Accelerated Computing Engagement**
 - × Get degree in 3 years + internship required
 - × 15 companies signed on!
 - o Full 6 Years of ABET accreditation in 2013



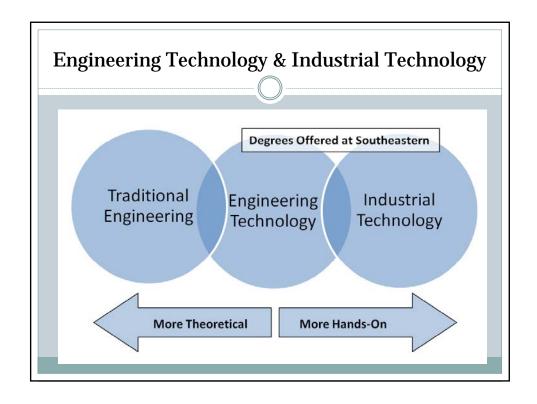


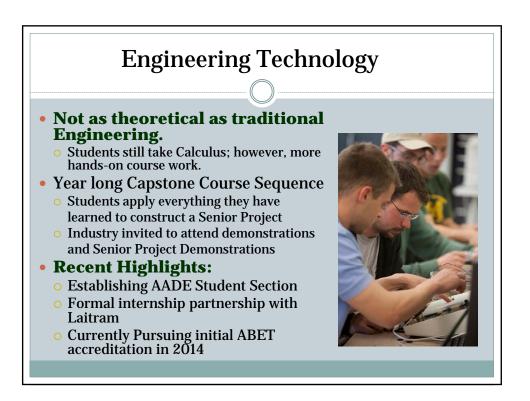


FIRST PLACE

Southeastern students dominate at the 2014 Deloitte Programming Competition









Industrial Technology

- Design Drafting, Robotics, or Supervision
- Strong Advisory Board ties with long history of industry connections
- Sophomore and Senior level Internships
- Very active American Welding Society (AWS) Student Club
- Recent Highlights
 - Reaccredited in 2013
 - o Completely revamped all curricula in 2013



Occupational Safety, Health and Environment (OSHE)

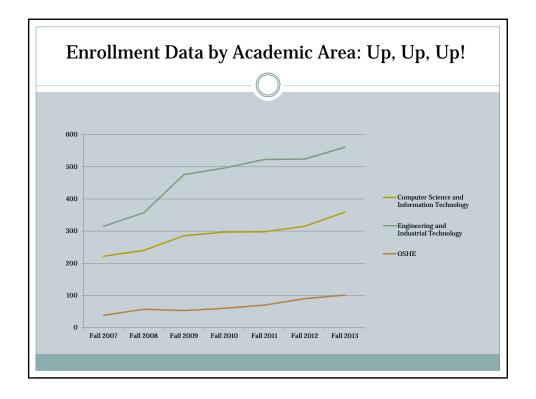
BIOLOGICAL SAFETY

RADIATION SAFETY

OCCUPATIONAL

- Come safely, work safely, and arrive home safely.
- A diverse mixture of traditional and non-traditional students
 - Non-traditional students bring a lot of expertise and connections to the program.
- Active American Society of Safety Engineers (ASSE) Student Section and ties to the Greater Baton Rouge Chapter of ASSE (GBRASSE)
- Recent Highlights:
 - Introduced three OSHE Minors
 - All 5 December 2013 Graduates secure employment
 ★ Average Salary: \$61,016
- Automatic GSP Designation upon graduation

22



Recent Job Placement - Very Good

Recent 2012-2013 CS&IT Graduates land jobs immediately upon graduation with: Allpax, Amedisys; Ameritas Technologies; Antares Technology Solutions; Baton Rouge General; Beta Land Services; Blue Cross Blue Shield; BREC; Brock Scaffolding; Cajun Constructors; Ford, Bacon & Davis; Geocent; GE Capital; Gilsbar; IBM; ISC Constructors, LLC; Keystone Engineering; Lockheed Martin; Marathon Pipeline; Micros, Inc.; PEC Safety Training; Petroleum Coordinators, Performance Contractors; Requisition Materials and Services Coordinator; Riskwise Consulting; Seatrepid International; Shaw Sunland Fabricators, LLC; Shell Chemical; Toxicological Environmental Associates, Inc; and The JBM Group.

Job titles include: Control Systems Engineer, Corporate Health and Safety Officer, Drafter, Hardware/Software Field Technician, Industrial Engineer, Instrument/Electrical Designer, Offshore Logistics Coordinator, Operations Technician, Petroleum Landman, Pipe Drafter/Designer, Programmer / Analyst, ROV Pilot/Tender, Safety Technician, Safety Specialist, Software Developer, Software Developer Analyst, Turner Industries, Web Developer, and Welding Technician.

Thank You!

Dr. Sebastian van Delden svandelden@southeastern.edu (985) 549-2189

P.S. Southeastern also has the best college football team in Louisiana! \odot



Appendix E





Industrial Hygiene Equipment: Current Needs and Projected Requirements

Ephraim Massawe
Southeastern Louisiana University
Spring 2014

Pumps and Calibration

- Gases, vapors and particulates
- Primary standards
 - dry-cal meter (\$1,375.00 @)
 - 5 to 500 ml 50 ml to 5 liters 300 ml to 30 liters



Pumps and Calibration

- Gases, vapors and particulates
- Primary standards
 - Soap Film Flowmeters (\$340.00 @)
 - 5 500 mL; 300 3000 mL





Pumps and Calibration

- Gases, vapors and particulates
- Secondary standards
 - Rotameters (\$100.00 @)
 - 0.05-0.5 L/min; 0.1-1.0 L/min; 0.4-5.0 L/min; 2-20 L/min)





Direct Reading Instruments (Portable Instruments)

• Portable Instruments



DRIs for Combustible gases and vapors

- Combustible Gas Indicators (CGI) Combustible gases and vapors
- Flame Ionization Detector (FID) Combustible gases and vapors
- Portable Infrared (IR) Spectrophotometer
- Ultaviolet (UV) Photoionization Detector (PID)- Many organic and some inorganic gases and vapors.
- Direct-Reading Colorimetric Indicator Tubes (Detector tubes)

Bioaerosol Sampling

- Bio-aerosol equipment, including!!
 - agar, impactors, cultural media

Radiation Sampling

- Gamma Radiation Survey Instrument
 - Geiger Muller Counter
 - Others