

Baton Rouge Newsletter

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August 1, 2016

August Meeting details Call for Questions on Ethics for Fall Seminar Coates Award Banquet Recap From the Chapter Chair's Pen 2016 Section Contacts	2 2 3 3 5	The AIChE Baton Rouge Newsletter is published monthly, from September to June, by the AIChE Baton Rouge Section, 110 Chemical Engineering, LSU, Baton Rouge, LA 70803. It is distributed free of charge to members of the Baton Rouge Section of the American Institute of Chemical Engineers. Membership Fee: \$15.00/yr.
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Third Annual AIChE Young Professionals' Trivia Night

Date: Thursday, August 25, 2016

Place: Mahoney's Pub, 124 W. Chimes Street, Baton Rouge

Topic: The Third Annual Young (and Young at Heart) Professionals' Trivia Night

- Agenda:5:30 PM Social hour as people arrive and form teams of up to 5
6:00 PM Trivia contest starts
7:30 PM Final question asked, scores tallied and winning team awarded.
- Menu: A selection of small bites and cash bar

Cost: FREE to attend! (Second guesses and double-point value opportunities at \$5 per team)

bring your friends. contact Jimmy Orr, <u>Jimmy.Orr@Jacobs.com</u> .

Other Upcoming 2016 Events / Speakers

- Sep 22 Tour of Qrion Instruments. Magnetic level sensors.
- Oct 20 Daniel Smith, Albemarle, Chemical Property Methods.
- Nov 11 Fall Seminar, Oak Lodge on Sherwood Forest Boulevard. Mixing, Economic Development, Safety Certification, Ethics Panel, more.

If you or your colleague(s) would like to give a technical presentation at an upcoming chapter meeting for 2 professional development hours (PDHs), please contact Chapter Chair, William Buck, at <u>William.Buck@WinkEngr.com</u> to schedule a meeting date and time.

Third Annual AIChE Young Professionals' Trivia Night

Testing of your trivia knowledge in the realms of chemistry, chemical engineering and more. Enjoy a pleasant night in the company of other chemical engineers.

Call for Questions on Ethics

ETHICS PRESENTATION – AIChE Seminar November 11. The 1-PDH Ethics Session will be conducted by the Louisiana Professional Engineers & Land Surveyors (LAPELS) personnel. The format will be a four LAPELS person panel fielding questions & answers. LAPELS is requesting for AIChE to forward questions and/or topics ahead of time. They want to tailor the presentation (somewhat) to the audience and build in topics or questions the audience may have for us, but have never asked. Interested parties can forward questions or concerns to jimmy.orr@jacobs.com.

A Model of Engineering Reasoning

One of the most important skills required of chemical engineers is critical thinking. Here is a model of engineering reasoning from a booklet by that title by Dr. Richard Paul, Dr. Robert Niewoehner and Dr. Linda Elder of *The Foundation for Critical Thinking*, www.criticalthinking.org. The model is not unique to engineering; its real power in adapting to any domain of life and thought. Engineers and scientists are quite comfortable working within the context of models. We employ thermodynamic models, mathematical models, computer models and even physical models. Here we apply a model to the way in which we think.

The goal or endpoint of the model is the development of the mature engineering thinker. There are eight necessary *intellectual virtues* or *traits*:

	Humility	Autonomy	Integrity	Courage				
	Perseverance	Reason	Empathy	Fairmindednes	S			
We learn to develop these from the eight <i>elements of thought</i> :								
	Purpose	Questions	Points of view	Information				
	Inferences	Concepts	Implications	Assumptions				
These elements derive from the application of the ten <i>intellectual standards</i> :								
	Clarity	Accuracy	Relevance	Logic	Breath			
	Precision	Significance	Completeness	Fairness	Depth			

The traits of humility, empathy, courage and fairmindedness help us to be open to points of view different from our own.

For example, when analyzing an engineering article, document or report, we can ask the following questions: What is the *purpose* of this article? What is the key *question* the author is addressing? What is the most important *information* presented? What are the main *inferences*/conclusions? What are the *key concepts* we need to understand? What *assumptions* underlie the author's thinking? What are the *implications* of accepting or not accepting the author's line of reasoning? What is the main *point of view* presented?

Similar questions come up when analyzing a design or even a discipline such as chemical engineering. The authors present a number of examples.

Hope is the companion of power and mother of success; for whoso hopes strongly has within him or her the gift of miracles.

Samuel Smiles

Recap of the Coates Award Banquet



Brandon Lithgoe's Coates address was the best presentation I have heard in a long time. He selected a topic that was of interest to the audience, even the chemists, *The Baton Rouge Ozone Problem*. He showed how ozone, produced by reactions between oxides of nitrogen (NO_x) and volatile hydrocarbons in the presence of sunlight, is more prevalent from May to September. He mentioned that EPA is in the process of reducing the minimum 8-hr average ozone concentration limit from 75 to 70 parts per billion, and presented the benefits of this reduction and what it would cost industry to satisfy this lower limit. He also went over the process EPA follows to decide on lowering the limit. Brandon presented the methods used to reduce NO_x production in industrial burners and mentioned that catalytic converters reduce the emission of volatile hydrocarbons from automobiles and other mobile sources. He told us how we, the public, can help reduce the ozone problem by limiting driving and preventing the emission of hydrocarbon vapors when filling our automobile and lawn-mower gas tanks. Brandon showed a very dramatic slide showing athletes wearing oxygen masks at the Beijing Olympics because of the smog problem. He ended the talk on a positive note showing how the ozone concentration in Baton Rouge has been reduced from 130 ppb in 1981 to the current 75 ppb.

At the Banquet 50-year membership certificates were presented to Dal Dalferes, Sam Bergeron, John Earle, Charles Perilloux and Adolph Peterson (only Dal was present). The Junior Scholarship Award was presented to Garrett Lambert of LSU, and the best dissertation award went to Dr. Aran Geraili, also of LSU.

Armando Corripio, Newsletter Editor

From the Chapter Chair's Pen

In recent days our world in Baton Rouge has become somewhat turbulent to say the least. We recently have had incidents of citizens and police dying as a result of gun violence. As members of the community all of us have a responsibility to be good citizens. One of the best ways to accomplish this is with behaviors that demonstrate respect towards others. I would ask our membership to reflect on positive behaviors showing respect in the community. Listen to your neighbor, coworker and representatives. Hear what they have to say. Encourage others to be respectful and open constructive dialogue. Pray for those who lost their lives and are injured – both citizens and police. Find a way to personally help someone in need or troubled. There are many ways to help in our community through volunteer activity. To AIChE members - <u>let's do more</u> in support of our community both individually and as a group.

WinBuck



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2016 Section Contacts

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Why Should You Join the Local AIChE Chapter?

- 1. It is a welcoming presence to new chemical engineers in the area.
- 2. It provides a neutral ground mentorship toward career directions and other life topics.
- 3. It facilities a better understanding of local, state, and federal policies related to our professions.
- It offers a smooth transition for graduating chemical engineers from LSU, ULL, and other nearby universities who start working in the area.



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and congratulate Baton Rouge Chapter President, William D. Buck, P.E.

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