

**Twenty-Seventh Annual Newsletter**  
**Department of Chemical Engineering**  
**August 2009**  
**By: Dr. James D. Garber**

**General**

This year your department was very stable with no personnel changes and with a 6-year accreditation approval by ABET.

The spring 2009 undergraduate enrollment continued to increase from 105 to 121. We expect another large freshman class. All entering students with a composite ACT of 25 or above will receive a BAM Club scholarship. In 2008-09 the department awarded 108 scholarships worth \$27,000. A total of 14 BS students graduated this year. The outstanding senior for the year was Erika Saffer, and the AIChE Student Chapter won the "Outstanding Chapter Award" on Engineering Day.

Your faculty had their most productive research year with a total of 55 presentations and publications. There were 10 MS graduates this year and 19 research grants worth \$1,741,000 were obtained by the faculty.

Our foundation accounts reached a total of \$314,825, which is a 25% growth over last year in spite of the economic recession. Cabot donated \$25,000, which reached their committed final total of \$50,000, thanks to Pat Dooley. The UL Lafayette Corrosion Research Center established a \$28,000 scholarship and Mr. Luke E. Fontenot ('61) and his wife Delores donated \$30,000 to established three \$10,000 scholarships in Chemical Engineering. Dwight Beridon ('68) again increased his family endowment by another \$2,000 during our BAM Club drive. This year's BAM Club had 133 contributors who gave a total of \$19,162, an average of \$144/contribution. This year we expect to give a record number of scholarships to deserving undergraduate students.

**Faculty**

The department has gone through an entire year without any personnel changes. A brief description of the activities of our faculty and staff follows:

**Dr. Rakesh Bajpai** is our Endowed Chair in Bioprocessing. Rakesh has taught our two senior design classes in addition to thermodynamics and a bioprocessing course. He helps Dr. Zappi run the Bioprocessing Center by having a total of eight graduate students.

**Dr. William Chirdon** is the faculty advisor of our AIChE student chapter. He teaches materials science courses and heat transfer. His polymer engineering course remains a student favorite. He and his wife, Crystal, have been enjoying their baby girl, Virginia Faye, who will be one year old in August. He had four MS graduates in December.

**Dr. Stephen Dufreche** has completed his first year on the faculty teaching CHEE 101 and the two unit operations courses, CHEE 302 and 401. He is performing research in the Bioprocessing Center. Stephen is the advisor of the sophomore class.

**Dr. Fred Farshad** continues to teach our undergraduate and graduate fluid courses. He and Dr. Hayatdavoudi of the Petroleum Engineering Department have continued to perform research of value to the oil and gas industry. Fred had two MS graduates this year.

**Dr. James Garber** continues to serve as Department Head and Director of the Corrosion Research Center. I continue to advise juniors, seniors, and transfer students. I teach the material balance, visual basic, unit operations laboratory and the corrosion engineering classes. I have started my fourth year on the Professional Engineering Board (LAPELS) and serve as the Vice-Chairman of that board. I graduated two MS students this year.

**Dr. Amy Liu** continues to teach our controls course along with CHEE 101 and the graduate transport course. She graduated her first MS student and has obtained three research grants.

**Dr. Devesh Misra** is our Endowed Chair in Metallurgy and is Director of the Center for Structural and Functional Materials. This year, he received the university honor of Distinguished Professor. He teaches three different material science courses in the department. Devesh is the graduate coordinator of the department and graduated two MS students. He has eight active research grants.

**Dr. Jim Reinhardt** continues to be one of the main teachers in the department. Last year he taught five courses and still had time to publish an article in *Chemical Engineering Progress* with Dr. Terry Chambers, our new Associate Dean. He continues doing a great job advising our freshman students and advising Kappa Sigma fraternity.

**Dr. Mark E. Zappi** continues as Dean of Engineering and Director of the Center for Bioprocessing Research. He completed his fourth year as Dean of Engineering. He now has an Assistant and an Associate Dean in the College of Engineering to assist him. He is actively recruiting undergraduate students and is starting fund-raising for the college.

**Mr. Jim Dooley**, our laboratory technician, continues to keep our department laboratories running smoothly. He has made great strides in improving the Controls laboratory and has upgraded equipment in the Unit Operations laboratory. He is great at fixing and installing new equipment. He also maintains our two computer labs that have 28 Pentium IV computers and printers.

**Ms. Roxie Guidry** has completed her eighth year as Departmental Administrative Assistant. She continues to run an efficient office with student aids and helps me to anticipate and head off any pending problems.

## **Undergraduate Program**

A total of 14 students received their BS degrees this year. Figure 1 shows that the number of BS graduates has remained fairly constant over the last six years. Next year we expect to have over 20 graduates. The job market has been a little soft with two of our May graduates still looking for work. One of our top students is going to graduate school at the University of Massachusetts and one is going to dental school in New Orleans. We have several undergraduates that are doing REU's (Research for Exceptional Undergraduates) at other universities this summer.

### **a) Enrollment**

The number of undergraduates enrolled in the department this spring was 121 compared to 105 the previous spring. This upward swing in enrollment is seen in Figure 1. We have made ten scholarship offers so far to high ACT entering freshmen and expect both sections of our CHEE 101 to be full this fall. The enrollment in CHEE Calculations (201) this fall is currently 40.

### **b) ABET**

As expected, the department received an excellent report from ABET which will visit again in six years. Our Advisory Board played a very important role in the process and the visitor took special note of the contributions of our alumni to the BAM Club. The donations and our foundation endowments are a reflection of how the former graduates feel about the department. He did review our Education Objectives (EO) and suggested some revisions which were made and approved by the faculty and the Advisory Board. The new EO's are shown in Table 1. These are the skills that our graduates are expected to have the first 1-5 years after entering the work place.

### **c) Departmental Equipment**

The Unit Operations Laboratory equipment is used to teach CHEE 101, the two senior Unit Operations Laboratories and the Controls Laboratory. Our two computer rooms have a total of 28 Pentium IV computers which are used by our freshmen through senior students. It is a challenge for Mr. Dooley and the department to maintain all of these laboratories.

This year, due to mid-year cuts of 4% and anticipated end of the year cuts, there was no equipment outlay. The department did obtain some help from the dean's maintenance account to purchase software and upgrade some computers.

<u>Equipment</u>	<u>Cost</u>
Aspen Software	\$2,400
Computer RAM, Keyboards and Mice	1,500
Total	\$3,900

We are first in line to receive \$50,000 to remodel our downstairs laboratory, Room 112. The budget cuts for the coming year might delay this.

**d) Departmental Advisory Board**

Our Industrial Advisory Board met twice this year, October 29, 2008 and March 13, 2009. Dan Vollmer, '91, of B.J. Services is our chairman. Current members include:

<u>Name</u>	<u>Company</u>	<u>Position</u>
Dan Vollmer, '91	B.J. Services	Chairman
Pat Dooley, '85	Cabot Corporation	Vice Chairman
Melissa Calhoun	Halliburton	Secretary
Bryant Chapman, '82	BP	
David Fishburn, '88	Dow Chemical	
Robert Gobert, '01	Shell Chemical	
Justin Landry, '03	Gate Engineering	
Clyde Lasseigne, '81	URS Corporation	
Andy Melancon, '82	Shell E & P	
Bill Portwood, '88	BASF	
Sarah Verret, '91	Monsanto	

The Board plays the important role of interviewing students, examining the curriculum, viewing facilities and advising the department on possible improvements. Over the past 10 years, almost all curriculum changes have come as a result of board recommendations. Any alumni interested in becoming a board member should contact Dan Vollmer at [Dan\\_Vollmer@bjservices.com](mailto:Dan_Vollmer@bjservices.com).

**e) Curriculum Changes**

There were two curriculum changes made this year. A review of a survey of our recent graduates found that they believed that they were somewhat lacking in their ability to speak and make presentations. By interviewing students, the Advisory Board found that the Technical Writing course, ENGL 365 was lacking in content. Due to our extensive Unit Operations laboratory reports it was not deemed to be necessary. The Board then suggested a public speaking course, CMCN 310. The faculty agreed with the suggestion and the change was immediately made to the 2009-2011 curriculum.

The second change was much simpler. The Statics and Dynamics course was changed to Statics and Mechanics. Since we seldom deal with moving systems, the Advisory Board recommended that we make this change which started this summer.

**f) Alumni and Faculty Who Contributed to CHEE 101**

Last fall semester we had two sections of CHEE 101 with a total of 60 students. Seven alumni took time from their busy work schedules to come to campus and speak about their work for 30-40 minutes to our CHEE 101 classes. The speakers and topics are listed below.

<b><u>SPEAKER</u></b>	<b><u>TOPIC</u></b>
Patrick Dooley, '85 (twice)	Carbon Black Technology
Jared Hebert, '08	Oilfield Chemical Industry
Dr. Mark Zappi	Bioprocessing Industry
Dan Vollmer, '92 (twice)	High Density Fluids in the Oilfield
Zeke Zerangue, '94	Environmental Engineering
Dr. Stephen Dufreche, '03	Bioengineering Research
Dr. James Garber, '66	Oilfield Corrosion Modeling
Chris Dupuis, '00	Exterran – Gas Processing
Dr. Bill Chirdon	Modeling of Concrete Solidification

We will have two sections of CHEE 101 this coming fall (Monday and Thursday afternoons from 2-4 p.m. taught by Dr. Dufreche and Dr. Liu. If you would like to share your professional experience and encourage the freshmen students to continue in Chemical Engineering, we would welcome you as a speaker. Please contact me at (337) 482-6151 or [garber@louisiana.edu](mailto:garber@louisiana.edu).

#### **g) Student Chapter Activities**

Our AIChE student chapter had an excellent year under president, Erika Saffer. The chapter was very active during the year and took first place on “Engineering Day.” Carlos Gonzales won first place in the technical paper competition and Erika Saffer won first place in the technical poster presentation.

The new officers elected for this coming year are:

President – Tim Thibodeaux  
 Vice President – Bridget Meaux  
 Secretary – Kelsi Andrus  
 Treasurer – Sydney Sovine  
 Sports Coordinator – Brad Rachal  
 ChemE Car Team Captain – Carlos Gonzalez  
 Public Relations Fundraising – Jennifer LeBlanc

Dr. William Chirdon was the advisor last spring and will continue next year in that capacity. Three of our junior students attended the Southeast AIChE Regional meeting. Carlos Gonzalez made a technical presentation and came out second in the region.

Omega Chi Epsilon, the Chemical Engineering Honor Society, continues to recognize outstanding academic students in the department. The annual spring initiation at Dr. Garber’s house saw a record total of 15 new members initiated. The incoming president for the group will be Sydney Sovine. The club continues to tutor students and encourage scholarship.

### **Graduate Program**

During this year a total of 23 graduate students were enrolled in the department and 10 completed their MS degrees, listed in Table 2. Figure 2 shows that the enrollment has decreased at a time when research activities have increased. The department has seven full assistantships and three fee waivers used to recruit new students. The remaining new students and the second year students are supported by individual faculty grants. Table 3 lists the 59 journal papers and technical presentations made by your faculty.

#### **a) Curriculum**

Since our department has two major areas of graduate research, (1) materials and (2) bioprocessing, we offer graduate courses in these areas as well as some basic graduate courses. This fall the courses taught will be Transport

Phenomena, Thermodynamics, Polymer Engineering and Nanomaterials. Next spring the courses will include Corrosion, Bioprocessing, Fluids, and Seminar. You would be welcome to take any of these graduate courses this coming year.

#### **b) Departmental Research Grants**

The department continues to obtain research grants from industry as well as federal agencies. The amount of energy put into obtaining grants this year was great. The faculty is actively working on 19 grants that totaled \$1,741,000. A description of each grant follows:

1. Agency: LA Board of Regents – Governor’s Energy Initiative  
Title: Biofuels – Clean Power Energy Research Consortium  
Funding: \$300,000  
Investigator: Drs. Mark Zappi and Rakesh Bajpai
2. Agency: ITRS LA Board of Regents  
Title: Development of Novel Feedstock for Support of Lipid Basis Chemical Production  
Funding: \$75,000  
Investigator: Drs. Mark Zappi, Rakesh Bajpai, and Stephen Dufreche
3. Agency: UL Lafayette System  
Title: The Chemical Car as a Tool for Recruiting in Louisiana Schools  
Funding: \$5,685  
Investigator: Dr. William Chirdon
4. Agency: CACHE  
Title: Etomica Molecular Modeling Proposal  
Funding: \$5,000  
Investigator: Dr. William Chirdon
5. Agency: LTRC  
Title: Effect of Thermal Oscillation Frequency on the Properties of Concrete and Asphalt  
Funding: \$29,914  
Investigator: Dr. William Chirdon
6. Agency: UL Lafayette Step Grant  
Title: Fermentation Equipment for Student Engineering Labs  
Funding: \$3,968  
Investigator: Dr. Stephen Dufreche
7. Agency: Premiere Pipe  
Title: Vortex Theory Design of a Compact, Flotation Unit  
Funding: \$60,000  
Investigator: Drs. Fred Farshad and A. Hayatdavoudi
8. Agency: UL Corrosion Research Center  
Title: Flowline/Pipeline Corrosion Model – Phase IV Sale to Marathon Oil  
Funding: \$10,000  
Investigator: Dr. James Garber
9. Agency: LaBoR Research Competitiveness Subprogram  
Title: Development of a Novel Nanocalorimetry System for Rapid Characterization  
Funding: \$111,776 (2007-2010)  
Investigator: Dr. Amy Liu

10. Agency: LaBoR Information Technology Initiative  
Title: A Quantum Mechanical, Molecular Mechanical Study of Two Key Enzymes in 1-3 Propanehol Production from Glycerol  
Funding: \$117,450 (2007-2009)  
Investigator: Dr. Amy Liu
11. Agency: NSF – Planning Grant for I/VCRC Program  
Title: Center for Visual Decision Informatics  
Funding: \$10,000  
Investigator: Dr. Amy Liu and Oregon State University
12. Agency: National Science Foundation  
Title: Interfacial Nucleation and Growth of Hierarchical Structures and Phases in Polymer Nanocomposites  
Funding: \$188,445  
Investigator: Dr. Devesh Misra
13. Agency: National Science Foundation  
Title: Phase Reversion-Induced Nanometer-Sized Grains in Materials  
Funding: \$301,325  
Investigator: Dr. Devesh Misra
14. Agency: National Science Foundation  
Title: Research Experience for Undergraduates in Nanostructured Materials  
Funding: \$24,000  
Investigator: Dr. Devesh Misra
15. Agency: National Science Foundation - EPSCOR  
Title: Magnetic nanorods – The Determining Role of Shape Anisotropy and Surface Roughness on the Magnetic Behavior of Nickel Ferrites for Device and Sensor Application  
Funding: \$100,000  
Investigator: Dr. Devesh Misra
16. Agency: CBMM, Brazil-Reference Metals (US)  
Title: Understanding High Strength Niobium Containing Pipeline Low Alloy Steels  
Funding: \$66,487  
Investigator: Dr. Devesh Misra
17. Agency: Information Technology Initiative Program, Board of Regents, Louisiana  
Title: High Aerial Density Nano-Engineering Magnetic Sensors: A New Dimension in Information Storage Technology and Communication  
Funding: \$82,302  
Investigator: Dr. Devesh Misra
18. Agency: Board of Regents of Louisiana  
Title: Enhancement of Mechanical Properties of High Density Polyethylene by Nanoparticle Reinforcement  
Funding: \$196,500  
Investigator: Dr. Devesh Misra
19. Agency: CBMM Reference Materials  
Title: Understanding Microstructural Evolution in Pipeline Steel  
Funding: \$53,466  
Investigator: Dr. Devesh Misra

## Department Finances

The department has three sources of money for operation. These are: university funds, company donations, and UL Foundation funds. The following funds were available last year:

- a) **University Funds**. The university funded the Chemical Engineering Department in the following categories.

Travel	\$7,187
Operating Services	9,745
Supplies	5,234
Total	<u>\$22,166</u>

This is the same allocation as last year.

- b) **Industrial Support**. These are industrial friends that provide some help with funds for department needs and for scholarships.

ChevronTexaco	\$2,500
Cabot (scholarship)	25,000
BAM Club Matching Funds	4,332
Total	<u>\$31,832</u>

The Chevron-Texaco funds are used for laboratory improvements and the Cabot funds completed their \$50,000 scholarship donation. We can add to this the \$4,332 in company matching funds obtained from our BAM Club drive which is used for scholarship.

- c) **UL Foundation Accounts**. Our other source of scholarship funds besides the BAM Club is the interest from our UL Foundation accounts. The current balance in these accounts has dropped due to the economic downturn. However, new accounts have been created. The current amount as of May 31, 2009 in each account follows:

Cabot Scholarship*	\$72,855
Monsanto Minority*	22,859
Charles A. Landry, Jr.*	20,076
Beridon Family Scholarship*	20,368
Garber NOLA NACE Scholarship*	18,935
Garber Family Scholarship	18,209
Advanced Polymer Scholarship*	10,693
Harris J. Schexnayder, Jr. Memorial Scholarship*	10,264
Peter Trahan Memorial*(New)	11,150
NACE Teche Chapter Scholarship*	10,178
Sheri Lynn Christen Memorial (Sabo)*	10,105
Paul Rozas Scholarship*	10,347
LaHaye, Farshad and Rieke Scholarship*	10,001
UL Corrosion Center Scholarship*(New)	27,950
Schilling Family Scholarship	8,786
Chemical Engineering Departmental Scholarship	2,049
Luke Everitt and Delores Fontenot Scholarship*(New)	10,000
Dr. Robin Fontenot Memorial Scholarship*(New)	10,000
Major Burton Fontenot Memorial Scholarship*(New)	10,000
Total	<u>\$314,825</u>
*endowed accounts	

Compared to last year's total endowment of \$238,000, in spite of the economic downturn, there has been a 25% growth in our endowments. Each \$10,000 endowment provides two - \$250 scholarships each year. Last year our endowments provided 29 of the 108 undergraduate scholarships that were given; this is 27% of our total scholarship.

We hope to eventually obtain 50% of our scholarships each year from endowed accounts. Please give some thought to establishing such an endowment. It will help the department forever.

## Alumni News

This year a total of 133 alumni gave \$19,162 to our BAM Club drive. Last year 153 alumni gave \$22,969. All of these funds were used to provide scholarships to our incoming freshmen and to our undergraduates that have maintained above a 3.0 gpa. Last year we gave 108 scholarships worth \$250 each for a total of \$27,000. Some of these funds came from our endowed scholarships while the BAM Club dollars and non-endowed funds made up the balance. The extra funds this year will help us handle the expected enrollment increase.

### a) BAM Club Contributions

The 133 alumni that contributed to the 2008-09 BAM Club drive gave an average of \$144/alumnus. The list of contributors has again been divided into the BAM Club (\$12-\$24), BAMBAM Club (\$25-\$99), Century Club (\$100-\$199), Super Nova Club (\$200-\$399), the President's Club (\$400-\$999), and the Millennium Club (\$1,000+). Alumni who have included their company's matching gifts are indicated by an asterisk.

#### **BAM Club (\$12 to \$24) - 7**

Eric Yocum (2) Guy Parent Andy Wertz	Barrett Bonin Alton Shirah	Emily Stelly Sonnier Amber B. Leonards
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#### **BAMBAM Club (\$25 to \$99) – 64**

Jared Hebert Mrs. George Comeaux William Salassi Paul Abshire Bruce Launey Dennis Guidry Marla R. Begnaud Tom Keaty (2) Winston Bramlet Marion Stewart Mark Smith Ronald Sawyer Aimee R. Coscarat Michael Splane Annie Prejean Gene Chauffe Kathy M. Feldmaier Carimjee Essajee Chris Dupuis Ross Dugas Koorosh Parastar Donna H. Colosimo	Katherine Giraud Angela R. Horacek Griff Nunez Joseph Zenner Bill Portwood Katie K. Bearden Eric Vige Noel Ardoin Brady Boudreaux Tuney Arceneaux Katie M. Thibodeaux Gerard Sabo Hilry Lantz Fredrick Mah Norbert Bergeron Justin Blanchard Maurice Oubre Boyd Alleman Joseph Billeaud Andrew Hasemann Gina Ingram	Justin Landry My Trinh Abu Elfaki John Melancon Lance and Rita Nunez Warren Burch Lyle Landry Kenneth Kirk Thomas Callegari Eric LeBlanc Donald Boumans Matt Rice Katie Russell Kristie Pickering Ron Freeman Denise Gracy Tammy H. Martinez Harold Delhommer Jamie Schlegel Burt Bijeaux Meri Lynn Gobran
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#### **CENTURY Club (\$100 to \$199) – 33**

Clyde Lasseigne Charles Landry, Jr. Palmer Fuselier Matt Bordelon Bola Folorunsho* Gil Guillory Pat Brown Sami Bou-Michael	Billy Bellefontaine Brandon Hayes Jeff Willmon K. Kakani Dan Vollmer Jean Herron Jeremy Kelso Tony Machie	Dwight Beridon Dr. Dale LeLeux Kyle Guidry Fred Dohman James Larke, Jr. Keith Sellers Jonathan Granger John Comeaux*
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Blake Hebert* Malcolm Huval Rachelle Suire	Charles Breaux Steve Chachere Donna Osburn	Matt Sonnier Walt Zenon* Kenneth Powell*
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**SUPER NOVA Club (\$200 to \$399) – 14**

Sarah Verrett* J.D. Gallet* Luke Fontenot Jose Boix Dr. James Reinhardt	Joseph DeMarco Rusty Thibodeaux* Robert Gobert* Todd Blanchard C.J. Couvillion*	Donald Brocksmith Ron Garber* Chad Segura David Janice*
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**PRESIDENT’S Club (\$400 to \$999) – 10**

Don Weintritt, Jr.* John Luby* Ron & Shawn Hoffpauir*	Andy Melancon* Scott Garber Paul Rozas	Kenneth Bordelon* William & Rose Comeaux*
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**MILLENNIUM Club (\$1,000+) – 5**

David Sanders* Dwight Beridon	Dr. Pat Maher* Luke Fontenot	Dr. James Garber
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**b) Company Matching Funds**

A total of eleven (11) different companies contributed a match for 22 alumni. Most are 1:1 while Shell and Anadarko are 2:1 and Exxon is 3:1. Whatever the match, it is a great help to the department. Below is the list of companies and their contributions:

Shell	\$1,280	Dow Chemical	\$250	Apache	\$100
Exxon	900	Citgo	250	BP	100
BASF	800	Anadarko	200	Williams	50
Chevron	450	Monsanto	100		

The total amount companies contributed this year was \$4,482 which is a drop from the \$6,036 amount donated last year. If you made a donation and did not include the matching form, please consider doing it as soon as possible.

**Top Contributing Class**

The following classes have the greatest number of contributors to this year’s BAM Club drive.

Rank	Class	No. Contributors
1	2001	8
2	1997, 1991, 1985	5
3	2002, 2000, 1984, 1973, 1967	4

Over 80% of the 68 different classes since 1942 had at least one contributor. William Salassi of our first class, 1942, contributed and Pat Brown continues to represent 100% of her class of 1947 with her contribution.

**d) Alumni Activities**

- John Launey, '51, who was the uncle of Bruce Launey, '68, and great uncle of Chris Launey, '95, passed away in Baton Rouge. He retired from Kaiser Aluminum as an Executive VP.
- Rama Alapati, '94, recently had his second child, a son, and works for Champion Technologies in Fresno, Texas.
- Matt Bordelon, '03, has gone to pharmacy school in Monroe. He is still a regular contributor to the BAM Club.
- Jonathan Bost, '03, is now a Baptist minister. He goes to all the UL football games; maybe his prayers will help.

- Calvin Boudreaux, '83, was in Lafayette visiting with Coastal Chemicals and we had lunch together.
- Dr. Dale Leleux, Jr. '00, called recently looking for a patent attorney so he could patent some tools he has designed to perform surgery.
- Alexa Broussard, '05, and Lyle Landry, '07, are both working with Chris Dupuis, '00, at Exterra in Broussard.
- Lyle Landry, '07, got married two days after Thanksgiving and is living in Lafayette.
- Tim Broussard, '04, completed his MS degree at Mississippi State and is working with Justin Landry, '03, at Gate Engineering in Houston.
- Neil Cary, '78, dropped by the office to say hello and to see if I would recognize him, which I did. He is working in the New Orleans area for a drilling contractor.
- Dr. Keith Colomb, '82, operated on my brother Ron, '74, and according to my brother he is A-ok. So if you need surgery!
- John Comeaux, '76, is at Chevron in Lafayette in the IT group. He recently came by with a bunch of his undergraduate textbooks for the AIChE students.
- Tara Cote, '08, is working in Canada for an oil/gas company. She is already working on her PE registration.
- Pat Dooley, '85, was responsible for the Cabot Corporation donation of \$50,000 in scholarship funds. He is also the Vice-Chairman of our Advisory Board. Thanks Pat for everything.
- Abu Elfaki, '97, changed jobs from Core Laboratories in Lafayette and moved to McKinney, Texas.
- Luke Fontenot, '60, made a surprise visit with his wife Delores to see their grandson, Chad (a junior in ChemE). During the visit, they donated 3 – \$10,000 scholarships to the department.
- Scott Garber, '94, and his wife E'lisa are the proud parents of a baby girl, Juliette, born on March 25. He made his parents, Grandma and Grandpa Garber very proud.
- Word is that Jonathan Granger, '94, is working in China for Cabot. At least there are crawfish in China.
- Jared Hebert, '08, is working for Coastal Chemical in Lafayette and has completed his 2<sup>nd</sup> NACE course and plans to become an Oilfield Corrosion Technologist.
- Gini Ingram, '99, recently moved back to Lafayette after living in north Louisiana. She works for the City of Lafayette.
- Sonja Jarreau, '97, lives in Houston and works for DuPont. She is a Six Sigma Black Belt and is married to Reverend Jeff Muchow and has two children.
- Clyde Lasseigne, '81, was the main driving force behind the recently established Peter Trahan Memorial Scholarship. Clyde recently joined our Advisory Board as Peter's replacement.
- Marc Pater, '82, and I saw each other at the Southern Bowling Tournament in Baton Rouge. He is manager of Circle Lanes in Baton Rouge.
- Anne Prejean, '02, left Champion Chemicals and works for M-Chem. I saw her at a corrosion conference in New Orleans last fall.
- Katie Russell, '06, is in her third year of PhD graduate work at Tulane. She is performing stem cell research.
- Pat Dooley, '85, Jacob Schexnayder, '07, and Kisha I. Kennedy, '08, were on campus for "Engineering Day" supporting our students.
- Andy Wertz, '08, graduated and immediately joined the US Army. He was acknowledged at his basic training graduation ceremony as the only engineer in the group.
- Kyle Zerangue, '94, was a speaker for CHEE 101 and has tried hard to get his company to hire more UL graduates. He is the proud father of a baby son.
- Please keep Russell Smith, '81, in your prayers. He is struggling with cancer and hypertension.

## Table 1

### UL Lafayette Chemical Engineering Department Educational Objectives

The chemical engineering program at the University of Louisiana at Lafayette will produce graduates who will be able to:

- professionally apply scientific and engineering knowledge to solve contemporary engineering problems.
- perform and communicate effectively in teams or individually.
- effectively apply modern computer hardware and software tools in the solution of scientific and engineering problems.
- understand and consider the economic, environmental, safety and ethical issues in the solution of scientific and engineering problems.
- understand the need for lifelong learning to continue to meet the current needs of local, state, and global industries and to adapt to the engineering challenges of the future.

## Table 2

### 2008-2009 Chemical Engineering MS Completed

#### MS THESIS

1. Name: Karan Deokar  
Advisor: Dr. James Garber  
Thesis Title: Carbon Dioxide and Bacteria Pitting Corrosion Rate Under Mass Transfer Control
2. Name: Abhijeet Patil  
Advisor: Dr. William Chirdon  
Thesis Title: Development of a Method for the Determination of Transient Thermal Properties of Exothermic Cementitious Composites Using Finite Element Models
3. Name: Deepthi Gandla  
Advisor: Dr. William Chirdon  
Thesis Title: Water-to-Cement and Cement-to-Mortar Ratios on the Thermal Diffusivity, Thermal Conductivity, and Intrinsic Heat Generation
4. Name: Sandeep Nunna  
Advisor: Dr. William Chirdon  
Thesis Title: A Proposed Experimental Method for Determining Transient Thermal Properties of Reactive Solids

5. Name: Niranjan Pednekar  
Advisor: Dr. Fred Farshad  
Thesis Title: Optimization of a Compact Flotation Unit Using Response Surface Methodology and Constrained Similitude
6. Name: Vishal Dhumal  
Advisor: Dr. Fred Farshad  
Thesis Title: Application of Vortex Theory to Design of a Compact Flotation Unit (CFU)
7. Name: Rajasekhar Anumolu  
Advisor: Dr. Devesh Misra  
Thesis Title: Degenerated Pearlite Formation in Niobium-Microalloyed Steels
8. Name: Rajesh Venkatasubramanian  
Advisor: Dr. Devesh Misra  
Thesis Title: Stimuli Responsive Magnetic Nanoparticle Carrier for Targeted Drug Delivery

### **NON-THESIS PROJECTS**

1. Name: Luis Espinoza  
Advisor: Dr. William Chirdon  
Project Title: Determining the Heat Capacity of Early-Age Mortar Using Differential Scanning Calorimetry
2. Name: Kalyan Medun  
Advisor: Dr. James Garber  
Project Title: Diffusion Coefficients for Pitting Model Species

### **Table 3** **2008-2009 Technical Papers and Presentations by Faculty**

#### **Rakesh Bajpai**

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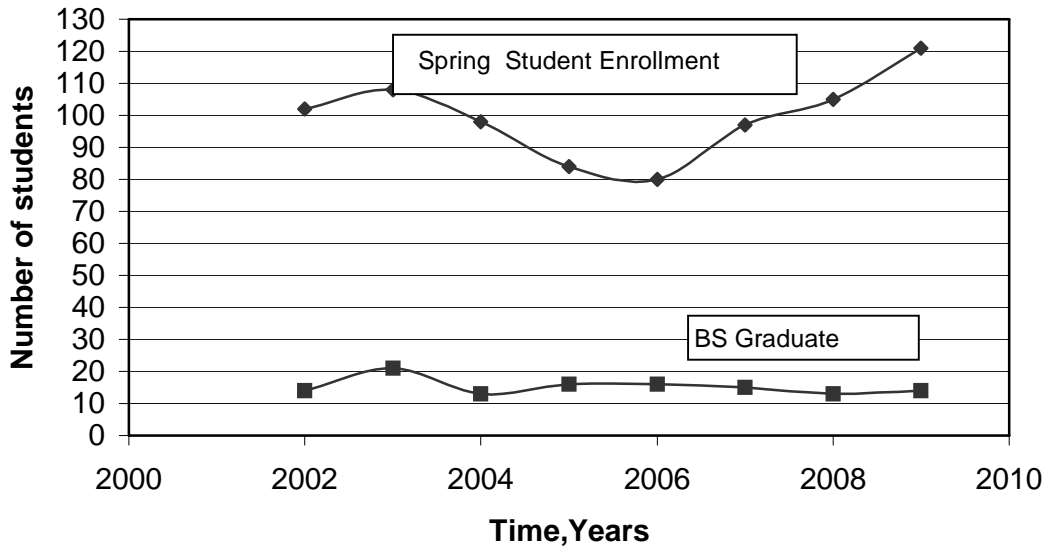
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**Figure 1**  
**Chemical Engineering Undergraduate Students**



**Figure 2**  
**Chemical Engineering Graduate Students**

