



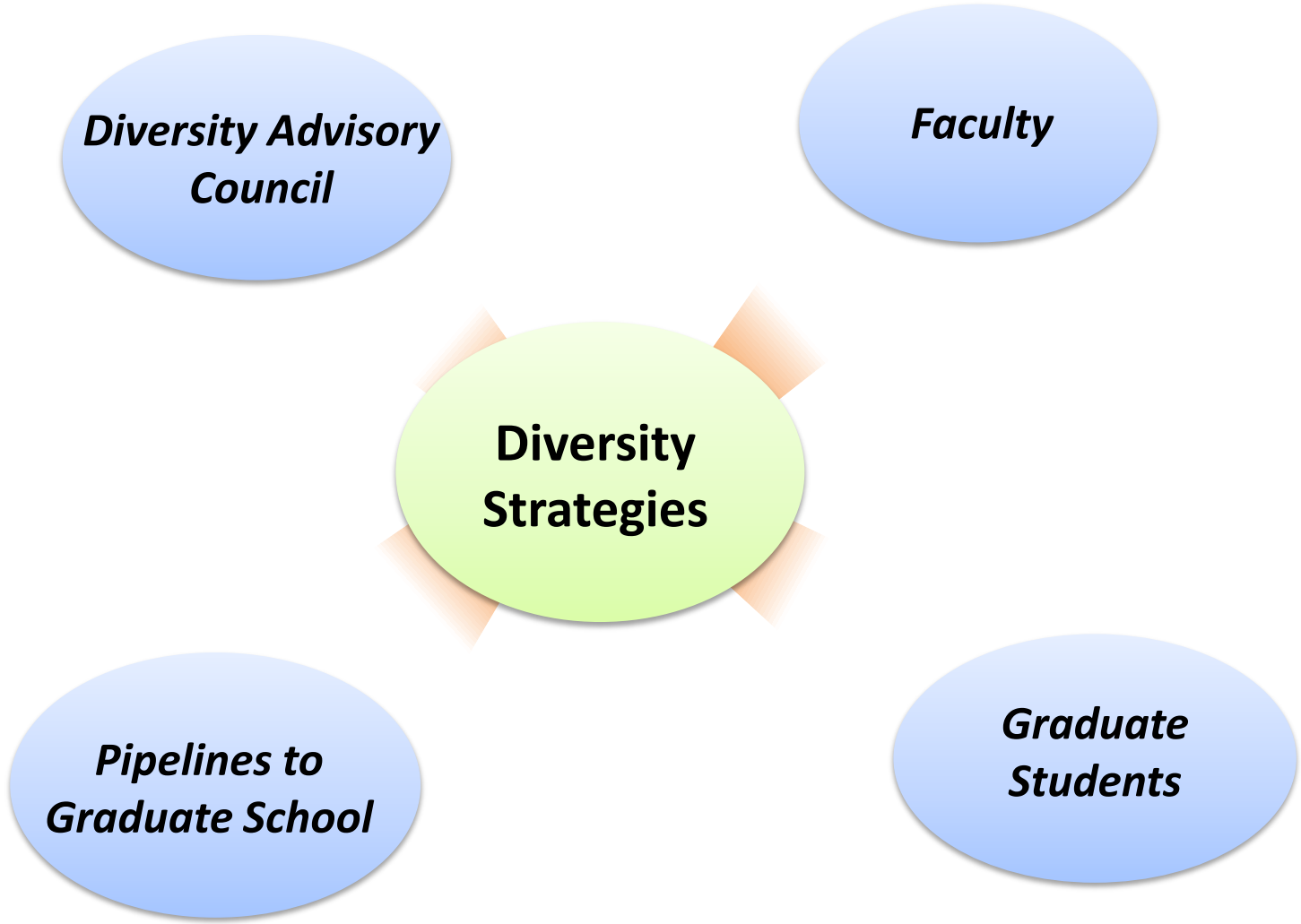
Diversity

Year 2, All-Hands Meeting, April 2, 2012

Juana Moreno

Increase the number of URM and women in the Alliance.

Diversity Strategies



Diversity Advisory Council



Sheila Edwards Lange

Vice President for Minority Affairs
and Vice Provost for Diversity

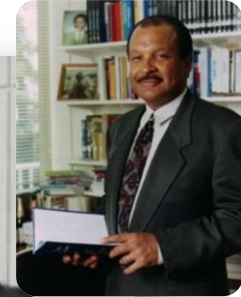
University of Washington



DiOnetta Jones

Associate Dean and Director,
Office of Minority Education,
Office of the Dean for
Undergraduate Education

Massachusetts Institute of Technology



William Lester

Department of Chemistry
University of California, Berkeley



Betsy Willis

Director, Advising and Student Records
Director, Gender Parity Initiative
Bobby B. Lyle School of Engineering

Southern Methodist University



Stephanie Adams

Associate Dean for Undergraduate Studies
School of Engineering

Virginia Commonwealth University

attendance at the August 2011 RII-IA SIGMA Symposium

DAC recommendations:

- Work with existing national efforts, i.e. GEM, Institute for Broadening Participation. **Graduate, REU/RET opportunities listed at IBP. A recruitment letter sent to GEM scholars.**
- Enhance researcher's ability to communicate with broader audiences: **NSF/LA EPSCoR sponsored workshop: Science: Becoming the Messenger, November 17, 2011.**
- Leveraging Louis Stokes Alliance programs.
- Industrial Liaison Team missing an HBCU partner: **Rachel Cruthirds (from Xavier) joined.**

DAC will meet for second time on July 23th.



Strategies

Graduate Students - Assistantship Supplements

Announced on Fall 2011:

A supplement granted to one female Ph. D. student in LaTech.

One new URM faculty, two URM graduate students & one postdoc.

Faculty - Supplements to Startup Packages

Contributing to the startup package of Anne Robinson, Tulane.

Pipelines

Targeting recruiting efforts in all state bridge programs:

4+1 Grambling/LA Tech, 3+2 Xavier/Tulane/UNO/SUBR, 2+2 LSU/BRCC
and 2+2 Southern/BRCC beginning Fall 2011

First success: LaSiGMA Xavier student majoring in Biomedical Engineering transfer to Tulane last year, she will graduate next year.

Diversity Milestones



Milestones	Y1	Y2	Y3	Y4	Y5
Diversity Advisory Council.	X	X	X	X	X
Provide financial incentives to GS.			X	X	X
Supplement Startup Packages.			X	X	X
Create/expand pipelines to graduate school.		X	X	X	X

On Track

On Track

On Track

On Track



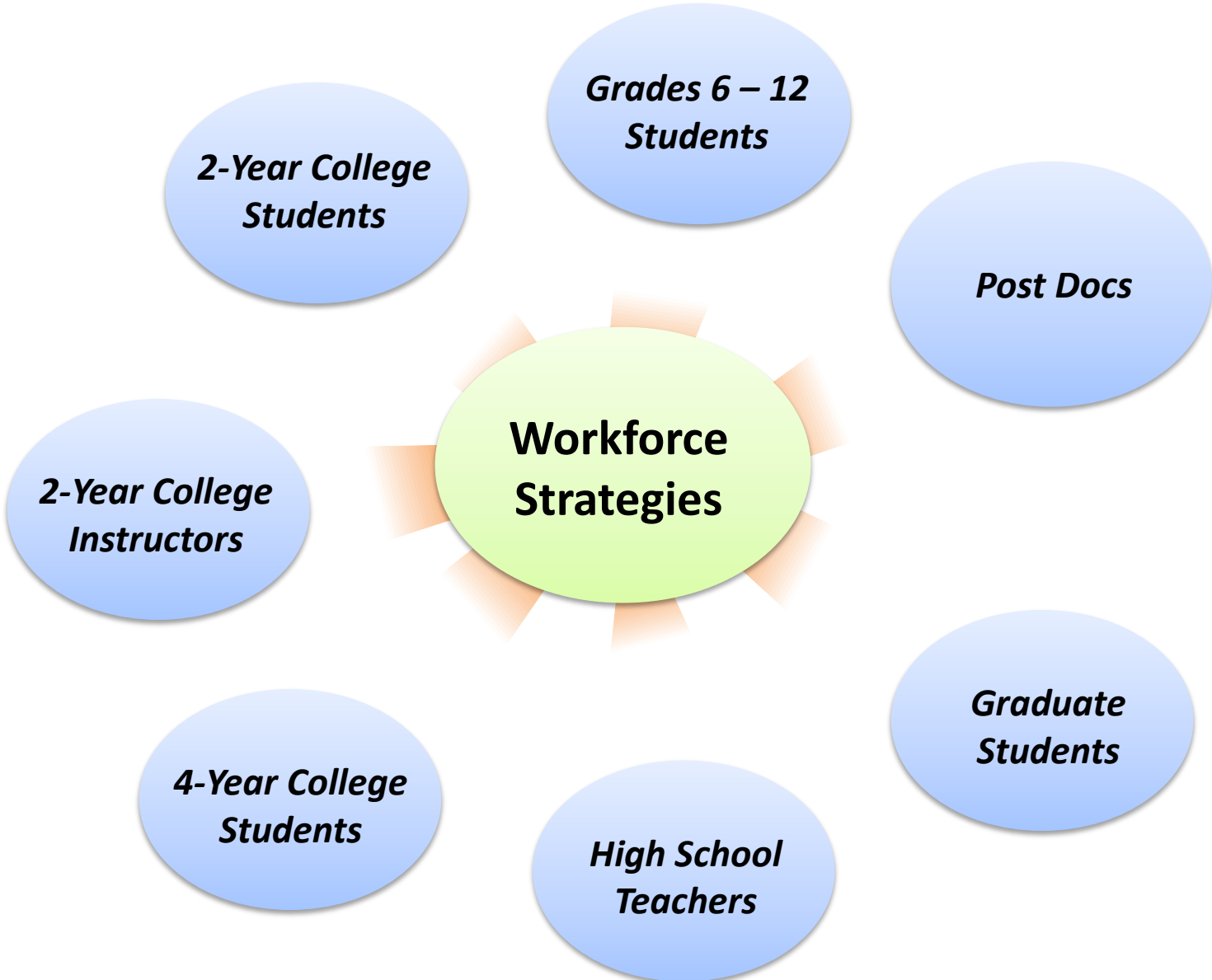
Workforce Development

Year 2, All-Hands Meeting, April 2, 2012

Juana Moreno

LA-SiGMA will address all levels of the educational ladder, contributing to a well-trained and diverse professional workforce.

Workforce Development Strategies



2-Year College Students

Grades 6 – 12 Students

Post Docs

2-Year College Instructors

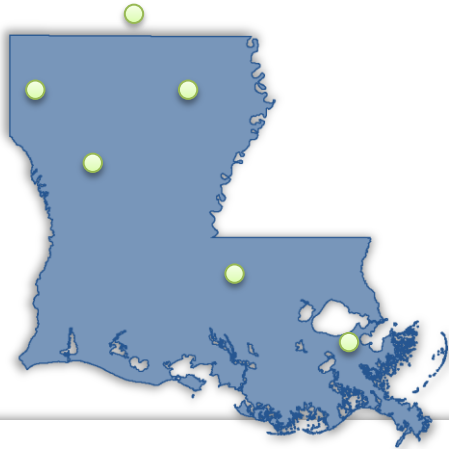
Workforce Strategies

Graduate Students

4-Year College Students

High School Teachers

Partnerships



Baton Rouge Community College
Bossier Parish Community College
Louisiana Delta Community College
Louisiana School for Math, Science & the Arts
South Arkansas Community College

Brookhaven National Lab
Eidgenössische Technische Hochschule Zürich, Switzerland
Göttingen University, Germany
Jawahar Lal Nehru Centre for Advanced Scientific Research, Bangalore, India
Karlsruhe Institute, Germany
Neel Institut, Grenoble, France
Max Planck Institute for Colloids and Interfaces, Potsdam, Germany
National Institute for Materials Science, Tsukuba, Japan
Argonne Nat. Lab, Illinois
SciDAC Institutes
Pacific Northwest National Lab
Sandia National Lab
Shodor Education Foundation
S.N. Bose National Centre for Basic Sciences, Kolkata, India
Technischen Universität Dortmund, Germany
Texas A&M University
University of Hertfordshire, Great Britain
Universität Würzburg, Germany

Grades 6-12



Two graduating Louisiana School for Math, Science, and the Arts participated in the 2011 LSU REU program.



LSU LA-SiGMA participated in Super Science Saturday on Oct 15, 2011. Over 1000 people attended.





Grades 6-12

LA Tech LA-SiGMA hosted an Open House as a part of Sci-Port's High School Engineering Olympics on February 21, 2012.

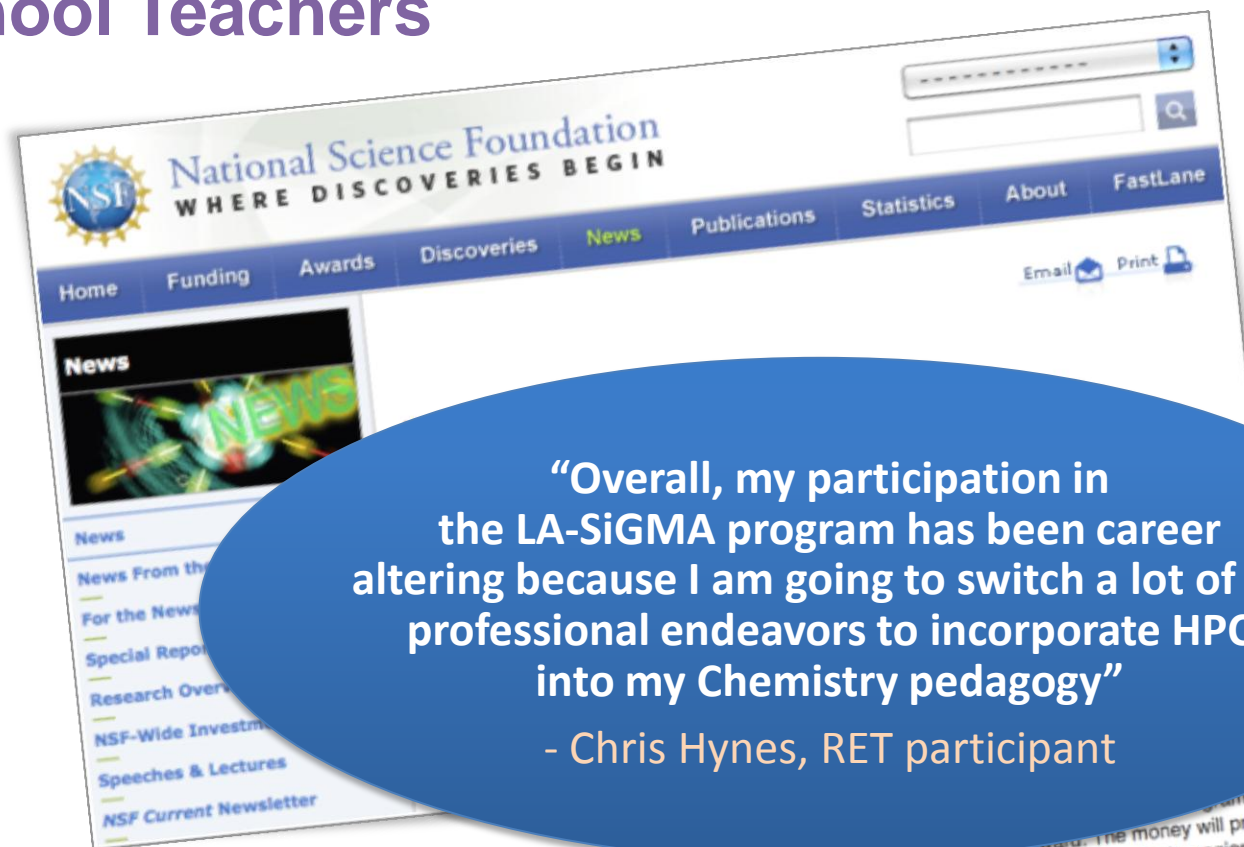


LATech/Grambling will participate in Engineering & Science Day April 25, 2012.



Tulane held an Open House last April, they are planning to hold one in the spring of 2012.

High School Teachers



“Overall, my participation in the LA-SiGMA program has been career altering because I am going to switch a lot of my professional endeavors to incorporate HPC into my Chemistry pedagogy”
- Chris Hynes, RET participant

- RET @ Ruston feature at NSF website
- Leveraged LSU's LaMSTI teacher program
- **2012 RET applicant selection underway.**
- **High school students will join their teachers on campus for one week workshop.**
- 14 LA-SiGMA RET teachers statewide, 29% women, 14% URM

...which just announced a \$3 million funding award. The money will provide \$20,000 fellowships for 96 master's degree candidates in the region to take summer and evening classes at LSU over three years starting in 2010.

Tuition is waived for teachers who participate in the opportunity, underwritten by the National Science Foundation.

A successful pilot program for seven teachers who received degrees in 2007 and 20 teachers who are currently enrolled led to the funding to expand the program, says James Madden, an LSU math professor who acted as primary contact for the grant application. The instruction will be offered using existing course numbers, but Madden says the program is a custom-designed, flexible track for teachers of grades 7 through 12.

Two-year college students & instructors:

Short courses:

- LA Tech held a one day course in Microscopy, October 14, 2011.

REU/RET participation:

- Two CC students into 2012 REU.
- Applicant selection for CC instructors underway.

Beowulf Bootcamp:

- BRCC instructor and student will attend 2012 Beowulf Bootcamp. They will provide feedback on the camp, and how we can best include CC students in the future.

Modules for STEM CC classes:

- Another BRCC instructor will be working with LSU LA-SiGMA faculty to develop course modules for STEM CC classes.

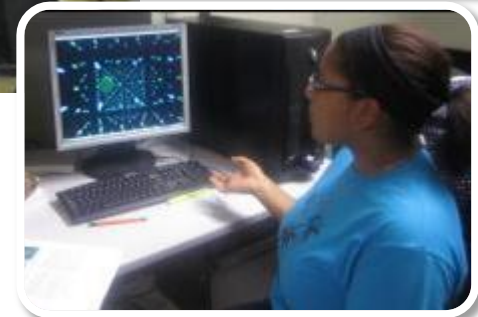


Undergraduates

2011: 30 LA-SiGMA REU students statewide.
They will be tracked to measure retention.
46.5% women, 53.5% URM



Selection for 26 REU slots is underway.
REUs begin at the end of May, and REU
students will attend the Symposium on
July 23 with LA-SiGMA faculty.



Graduate Students



Graduate level courses:

1 course Fall 2010, 3 courses Spring 2011, 2 courses Fall 2011, 3 courses Spring 2011
(6 of the courses in partnership with German & Swiss Universities leveraging PIRE award,
2 of the courses include students at Bangalore, India)

Multidisciplinary & multi-institutional mentoring committees for each graduate student

The screenshot shows the LA-SIGMA website with the following content:

LA-SIGMA
Louisiana Alliance for Simulation-Guided Materials Applications

Courses

LA-SIGMA provides an education plan that includes new materials science graduate courses delivered across the State. A core set of interinstitutional graduate level courses (three in the first year, six more in subsequent years) in computational science, multiscale modeling methods, advanced experimental techniques, and other topics are being developed and broadcast throughout the State using synchronous HD video as well as asynchronous methods. These courses will be integrated into existing and new graduate curricula on each campus, providing graduate students a transformative educational experience in materials science, who who will enter the workforce as highly skilled, well-trained computational materials scientists.

Distance Learning courses offered in a regular basis

- Simulations of quantum many body systems (international course), <http://www.phys.lsu.edu/~jarnel/Green/Index.html>
- Advanced solid state physics, http://www.phys.lsu.edu/~jarnel/COURSES/ADV_SOLID_HTML/course_advsa.html
- Other online course materials, <http://www.phys.lsu.edu/~jarnel/TEACH.html>
- Computational Physics: Computing for Petascale Systemse, <http://www.pirealps.org/Courses/CompScience/Syllabus.html>

If your LA-SIGMA institution is interested in offering these courses to your students, please contact PI Mark Jarnel at jarnelphysics-at-gmail-dot-com.

LA-SIGMA Site Menu:

- Home
- Objectives
- The Project
- People
- Management
- News & Events
- Courses
- RET
- REU
- Documents
- Employment
- Staying Connected

LI Site Menu:

- Home
- LI/LA-SIGMA Courses
- LI/LA-SIGMA Seminar Series
- About LOMI



Graduate Students and Postdocs



Density Functional Workshop, Summer 2011
(40 registrants, 5 speakers, LA Tech, LSU, SUBR, Tulane, Xavier)



Kieron Burke
UC Irvine

John Perdew
Tulane

Mel Levy
Tulane & N.C. A&T

Weitao Yang
Duke

Shobhana Narasimhan
Jawaharlal Nehru Centre

Tanusri Saha-Dasgupta
S.N. Bose National Centre

Indo-US joint proposal
submitted.

Graduate Students and Postdocs

Mardi Gras conference: Computational Materials & Biosystems

February 16-18, 2012
16 invited speakers
70 participants



Graduate Students and Postdocs



Workshop on Computational Thinking by Bob Panoff and the Shodor team

July 31-August 6, 2011

NATIONAL COMPUTATIONAL SCIENCE INSTITUTE Jump To:

Introduction to Computational Thinking (ICT)

Shodor > NCSI > 2011 Workshops > Introduction to Computational Thinking (ICT)

Introduction to Computational Thinking (ICT)
Louisiana State University


Workshop Info

Application Policies



Registration Closed

Introduction to Computational Thinking (ICT)

First Look — 2011
The purpose of these workshops is to expose participants to and inspire them with new techniques, teaching materials, and applications to use computational models in the undergraduate curriculum. By bringing faculty and teachers from different disciplines together so that they can learn how to incorporate computational models into their classrooms and research projects, it will advance the use of computing in undergraduate science education. We desire to have participants from a broad range of disciplines, including computer science, mathematics, and the physical and life sciences. Each workshop below may be a "variation" on the theme of Computational Thinking.

Institution	 Louisiana State University Baton Rouge, LA
Dates	Jul 31 - Aug 6
Local Coordinators	Leigh Townsend and Kathy Traxler
Lead Instructors	Jennifer Houchins, Erin McNelis, Clyde Metz, Bob Panoff and David Toth
Notify By	Jun 15
Cancel By	Jul 8

Details **ICT: Computational Thinking from a Parallel Perspective:**
Focus on parallel thinking and resources to prepare graduate students, college faculty, and high school teachers for modeling and simulation for new parallel computing environments.

©1994-2011 Shodor [Policies](#) | [Website Feedback](#) Not Logged In. [Login](#)   **NSDL** **BLUE WATERS**



Graduate Students and Postdocs

VSCSE Workshops on GPU Algorithms and Programming Tools Summer 2011, 2012

VSCSE VIRTUAL SCHOOL OF COMPUTATIONAL SCIENCE AND ENGINEERING

HOME | ABOUT | PAST SUMMER SCHOOLS | 2011 SUMMER SCHOOLS | NEWS | CONTACT

2011 summer school courses

Graduate students, post-docs and professionals from academia, government and industry can gain the skills they need to leverage the power of cutting-edge computational resources at three courses offered this summer by the Virtual School:

- › [Petascale Programming Environments and Tools](#), July 12–15, 2011
- › [Proven Algorithmic Techniques for Many-core Processors](#), August 15–19, 2011

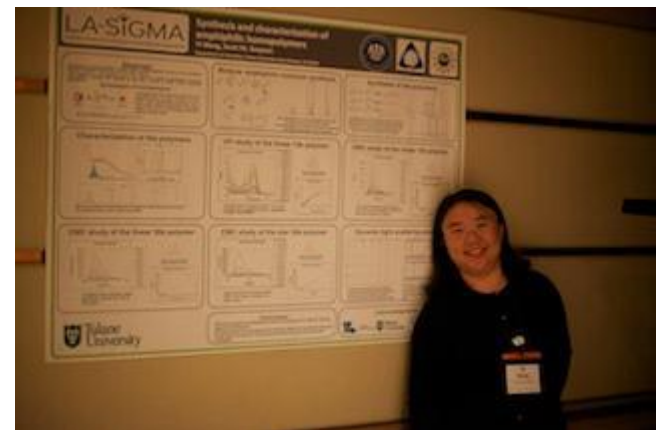
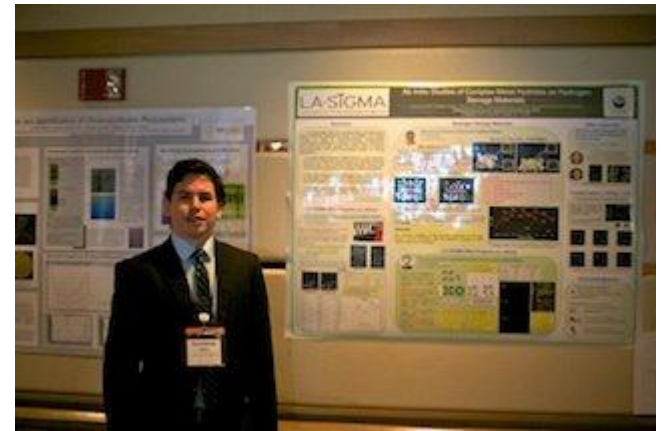
To participate in summer courses prospective students must first be enrolled in the Virtual School. Enrollment is free and can be completed at <https://hub.vscse.org/>.

Graduate Students and Postdocs

22nd National NSF EPSCoR Conference, Coeur d'Alene, Idaho, October 24-27, 2011

Three LA-SiGMA graduate students attended and competed in the Energy section of the Student Poster Competition.

Ekuma won the 2nd Price in the Energy section.



Graduate Students



Materials Science PhD Programs

Collaborative Ph.D.
Program in
Materials Science and Engineering

Proposed to the Louisiana State Board of Regents

Louisiana State University and Agricultural and
Mechanical College
The University of New Orleans
Southern University, Baton Rouge

LSU-SU-UNO joint PhD in Materials Science & Engineering:

Proposal approved by SU and LSU systems, being considered by the Louisiana Board of Regents.

LA Tech PhD in Molecular Science & Nanotechnology:

Letter of Intent being reviewed by University of Louisiana System, should go to Board of Regents in September, 2011. Expect to receive permission to submit proposal for the degree.



A LETTER OF INTENT
for a

DOCTOR OF PHILOSOPHY PROGRAM
in
MOLECULAR SCIENCES AND
NANOTECHNOLOGY

submitted by
LOUISIANA TECH UNIVERSITY

to the
UNIVERSITY OF LOUISIANA SYSTEM
BOARD OF SUPERVISORS

Graduate Students and Postdocs



Internships/Travel

Supada Laosooksathit attended Supercomputing '11 in Oregon along with Tom Bishop.



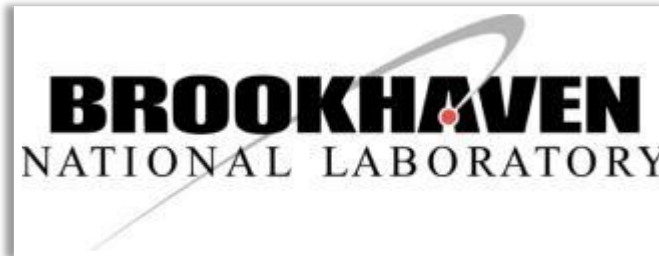
Chinedu Ekuma from LSU visited Pacific Northwest National Laboratory in September, 2011

5 students travel to the Louisiana Academy of Science meeting.



Chinedu Ekuma and Ryky Nelson from LSU visited Brookhaven National Laboratory in October, 2011

Pavel Kucheryavy traveled to New York University in June 2011 to learn about NMR.



Conrad Moore attended PIRE workshop in Goettingen, Germany, January 2012.

Graduate Students and Postdocs

LA-SIGMA Effective Teaching Workshop for postdocs and senior level graduate students based on Michigan State's FIRST program (Faculty Institute for Reforming Science Teaching) developed and taught by Cynthia Sisson and Stephanie Aamodt (LSU-Shreveport). The first workshop will be held in July 2012.



The screenshot shows a Mozilla Firefox browser window displaying the FIRST IV website. The browser's address bar shows the URL <https://www.msu.edu/~first/>. The website features a navigation menu with links for Home, About, Workshop Dates & Locations, Apply, Contact, Resources, and Project Links. A central graphic displays the acronym "FIRST IV" with the tagline "Faculty Institutes for Reforming Science Teaching" and a circular diagram with five segments labeled "Assess", "Reflect", "Design", "Implement", and "Practice". Below this, a map of the United States highlights "Meeting Locations" at OIMB, MRS, KBS, SERC, and UGAMI. A section titled "FIRST IV In the News" lists recent media coverage: "August 2011 Johns Hopkins University", "August 2011 HHMI", and "September 2011 Nature". The footer includes logos for Michigan State University and Murray.

Workforce Development Milestones



Milestones	Y1	Y2	Y3	Y4	Y5	
Open House for MS/HS	X	X	X	X	X	<i>On Track</i>
Research Experiences for Teachers	X	X	X	X	X	<i>On Track</i>
Research Experiences for Undergraduates	X	X	X	X	X	<i>On Track</i>
Graduate Courses via Synchronous Video	X	X	X	X	X	<i>On Track</i>
Internships at National Labs/Industry	X	X	X	X	X	<i>On Track</i>
Graduate Curricula		X	X	X	X	<i>Ahead</i>
Short Courses and Modules for CC	X	X	X	X	X	<i>On Track</i>

Workforce Development Milestones



Milestones	Y1	Y2	Y3	Y4	Y5
Summer Workshops for HS/MS	X	X	X	X	X
Beowulf Boot Camp for CC	X	X	X	X	X
Effective Teaching Workshops for GS/PD	X	X	X	X	X

- Logistical issues (e.g., housing minors on campus) hindered 2011 HS/MS summer workshops. Experience with running RET will allow summer workshops in Year 2.
- BRCC volunteers instructors for Boot Camp unable to participate in 2011. After meeting BRCC Science Dean new instructor on Boot Camp.
- Logistical issues that prevented Effective Teaching Workshop during 2011 summer has been solved .