From the Dean

The world is changing quickly. Will Purdue Science graduates have the knowledge and abilities they need to meet future challenges?

Our educational mission is not only to prepare students with the tools for success in today’s technological world, but more importantly to impart the analytical skills that will help them adapt to and lead tomorrow’s world.

In the time since the College of Science was founded in its current configuration more than 40 years ago, much in the academic environment has changed: Our students come to us with different skills and needs, and the possibilities for instruction and discovery have multiplied. The demands our students face in the workplace have also changed over the years.

We in the College of Science have an obligation to provide students the opportunities and choices that will allow them to build a firm foundation for a productive future—as scientists, educators, doctors, lawyers, business people, entrepreneurs, government leaders, and informed citizens.

Last year, I commissioned a task force to begin reviewing the College-level requirements for undergraduate Science majors in light of our educational mission. The Undergraduate Task Force, chaired by Chris Sahley, Associate Dean for Undergraduate Education, and Alan Welch, Assistant Dean for Undergraduate Students, is comprised of faculty members from each of our seven Departments as well as student representatives.

What skills and characteristics do our students need for future success? The Task Force has used discussions with Department Heads, current students, and alumni to develop a list of desired outcomes of a Purdue College of Science undergraduate education. The faculty of each Department are in the process of prioritizing and tuning the list. Each Department will then work in concert with the Task Force to examine where there are gaps between the curriculum and the desired outcomes and to

In this Issue:

Spotlight on New Faculty

Science People

- Daniela Bortoletto elected Fellow of American Physical Society
- Matthew Huber’s work cited by national publication
- Eugene Spafford appointed to leadership of ACM Public Policy Committee
- Ninghui Li Receives CAREER Award
- Graham Cooks chosen for Outstanding Commercialization Award
- Computer Science staffer receives University award

Profiles of Success

Science News and Research

- Women In Science Program celebrates 10th anniversary
- Science K-12 Outreach programs engage teachers and students
- Lawson Computer Science Building takes shape
We in the College of Science are committed to examining what’s important in a Science education and how best to achieve it. We have an opportunity to make significant improvements and offer new choices for our undergraduates in Science. I look forward to reporting our progress in future issues of Science @ Purdue.

You can find more background information about the Task Force and supplemental reading at the web site. In addition, the web site provides Science faculty with various student data and minutes of past meetings. We welcome any comments or suggestions as we go through the process. As always, you can contact me at dean@science.purdue.edu.

Best regards,

Jeff Vitter

SPOTLIGHT ON NEW FACULTY

In each issue of Science @ Purdue, we feature biographical sketches of some of the new faculty members joining us in 2004-05.

Henry Chang, Assistant Professor,
Department of Biological Sciences
Professor Chang received his Ph.D. from the University of California Berkeley in 1995. His research is in cell and developmental biology, specifically in membrane trafficking, molecular genetics, cell polarity, development, and signal transduction.

Wen-wen Tung, Assistant Professor,
Department of Earth & Atmospheric Sciences
Professor Tung received her Ph.D. in atmospheric sciences from the University of California Los Angeles in 2002. Prior to coming to Purdue, she had been a postdoctoral fellow and visiting scientist at the National Center for Atmospheric Research (NCAR). Prof. Tung’s research interests are in tropical meteorology, atmospheric convection, clouds in climate change, and atmosphere-biosphere interaction.

Purdue News

- Lilly Endowment grants $25 million to Purdue's Discovery Park
- Purdue’s first satellite incubator opens doors to technology companies

Calendar

Science alumni: We want to hear from you! Share your professional news and your personal and family milestones with the Science community by sending email to news@science.purdue.edu.

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**SCIENCE PEOPLE**

**Daniela Bortoletto elected Fellow of American Physical Society**

Professor Daniela Bortoletto of the Department of Physics has been elected a Fellow of the American Physical Society. The honor, which goes to only one-half of one percent of the Society’s membership, is based on her important contributions to top and bottom quark physics and leadership in the development and fabrication of precision silicon detectors. [Full story](http://c89.science.purdue.edu/sites/enewsletter/february2005/)

**Matthew Huber’s work cited by national publication**

Last year, a team of scientists including Prof. Matthew Huber of the Department of Earth and Atmospheric Sciences analyzed fossil records to find evidence that the Earth underwent a sudden cooling 65 million years ago that may have taken millennia to abate completely. His work, which was featured in the August 2004 edition of *Science@Purdue*, was listed in *Discover Magazine* as one of the top scientific discoveries of 2004.

**Eugene Spafford appointed to leadership of ACM Public Policy Committee**

Eugene Spafford, Professor of Computer Science and Executive Director of the Center for Education and Research in Information Assurance and Security (CERIAS), has been appointed as the sole chair of the Association of Computing Machinery’s U.S. Public Policy Committee (USACM). Spafford shared leadership responsibilities with Barbara Simons, a former ACM president and founder of USACM from 2000 to 2004, and was sole chair from 1998 to 2000. USACM tracks US policy initiatives that may impact ACM’s membership and provides expertise to public policymakers. The ACM Washington Policy Office assists policymakers, computing professionals, and the public in understanding the implications of information technology policy issues. [Full story](http://c89.science.purdue.edu/sites/enewsletter/february2005/)

**Ninghui Li receives CAREER Award**
Professor Ninghui Li of the Department of Computer Sciences has received the prestigious National Science Foundation CAREER award. The CAREER program is a Foundation-wide activity that offers the foundation’s most prestigious awards for junior faculty members. The CAREER program recognizes and supports the early career-development activities of those teacher-scholars who are most likely to become the academic leaders of the 21st century. The NSF awarded Professor Li’s CAREER award for his proposed work on “Access Control Policy Verification Through Security Analysis and Insider Threat Assessment.” Full story

Graham Cooks chosen for Outstanding Commercialization Award

Professor Graham Cooks of the Department of Chemistry received the 2004-05 Outstanding Commercialization Award for Purdue University Faculty for his work on commercialization of analytical instruments, in particular mass spectrometers. The Outstanding Commercialization Award is given to a Purdue faculty member in recognition of outstanding contributions to and success with commercialization of Purdue research discoveries. The award fund was established with an endowment gift by the Central Indiana Corporate Partnership Foundation. Full story.

Computer Science staffer receives University award

Amber Vibbert, business office clerk in the Department of Computer Science, received the University’s 2004 Eleanor O. Kaplan Award for Exceptional Customer Service. The awards go to members of the Business Office staff in recognition of excellence and leadership in providing customer service. Pictured here at the award ceremony are, left to right: Susanne Hambrusch, Head of the Department of Computer Science; Amber; Mary Bell, Business Manager for the Department of Computer Science; CS Professor Chris Clifton; Dean Jeff Vitter; and Tammy Emilson, Director of Financial Affairs for the College of Science. More on the Eleanor Kaplan Award.

Related Searches: Mathematics Education Resources
PROFILES OF SUCCESS

Each month we spotlight the personal accomplishments and career successes, whether mainstream or unique, of Science alumni. This month’s spotlight is on Dr. Frank Brown, Jr., who received his Ph.D. in chemistry in 1969. Full story.

SCIENCE NEWS AND RESEARCH

Women In Science Program celebrates 10th anniversary

Seventy graduate students and guests gathered at a special program on January 26th to mark the tenth anniversary of Women In Science Programs. WISP Director Barbara Clark introduced the featured speakers, pictured here: Dr. Martha Chiscon, Professor and Associate Dean Emerita, who was a Purdue pioneer in programs for women in Science, and Dr. Lynn Bryan, a WISP alumna who is on the faculty at the University of Georgia. Full story.

Science K-12 Outreach programs engage teachers and students

Cold January days weren’t enough to keep the College of Science K-12 Outreach coordinators from traveling across Indiana to interact with schools, teachers, students, and parents. Workshops for teachers and hands-on activities were just a few of the activities conducted in support of the Outreach motto: “Supporting Teachers, Inspiring Students”. Read more.

Lawson Computer Science Building takes shape

The skeleton of the first floor of the Richard and Patricia Lawson Computer Science Building is taking shape. Despite snow, an ice storm, flood conditions and January thunderstorms...
beams to the first floor. Their work just within the new year has brought the construction to ground level. The excitement is growing as onlookers can make out the framework for the front entrance and awning. Check the progress of the new building by visiting the construction webcam.

**SCIENCE ALUMNI NEWS**

Science alumni: We want to hear from you! Share your professional news and your personal and family milestones with the Science community by sending email to news@science.purdue.edu. Click here for this month’s Alumni News.

**PURDUE NEWS**

**Lilly Endowment grants $25 million to Purdue's Discovery Park**

Purdue officials announced on January 21 that Lilly Endowment Inc. has awarded the university a $25 million grant to start four new interdisciplinary research centers and to provide operational support for six existing centers at Discovery Park. This grant brings Lilly Endowment’s total commitment for Discovery Park, the university’s interdisciplinary research, enterprise and education complex, to more than $50 million. In 2001, Lilly Endowment provided more than $25 million to help launch the park’s first interdisciplinary centers. [Full story.](http://c89.science.purdue.edu/sites/enewsletter/february2005/)

**Purdue’s first satellite incubator opens doors to technology companies**

A grand opening celebration at the Purdue Technology Center of Northwest Indiana on January 12 put a spotlight on the incubator’s incoming client firms and their potential for making an impact on the region’s economy. U.S. Rep. Pete Visclosky (D-Ind.), Purdue University President Martin C. Jischke and members of the center’s advisory board and management team participated in a ribbon-cutting ceremony to welcome the firms. Several other firms are expected to sign lease agreements in the first quarter of 2005. In addition to securing $6.9 million in federal funding for both the 48,000-square-foot center’s construction and initial operating costs, Visclosky worked to help recruit four of these charter ventures to the center. [Full story.](http://c89.science.purdue.edu/sites/enewsletter/february2005/)
CALENDAR

Purdue on the Road, Atlanta, February 24
Purdue on the Road, Dallas, February 25
Purdue on the Road, Cincinnati, March 4
Purdue on the Road, Detroit, March 5
“A Celebration of Structural Biology at Purdue: A Symposium in Honor of Michael G. Rossmann”, April 9
Distinguished Science Alumni Awards, April 15
Department of Physics “Grand Finale Symposium,” celebrating 100 years of Physics at Purdue, April 16.

Science Events
Science Seminars
Purdue Events