Course X News For December, 1997

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Faculty Distinctions

Kudos to Prof. Doug Lauffenburger, who presented an invited plenary lecture entitled "Engineering Cell Function" at the 1997 National Academy of Engineering Annual Meeting Symposium, in
Prof. Robert Langer recently received the PEL Associates Award for the best contributions in applied polymer chemistry in 1995. This award is in recognition of his outstanding work in biopolymer research and applications providing key contributions in tissue engineering. This includes a cash prize, which will be used for books for polymer engineering students.

Congratulations to Prof. Langer on receiving this honor!

Joint Distinctions

Prof. Greg Rutledge and graduate students Jeff Carbeck and Shawn Mowry recently received the Best Paper Award from the Plastics Analysis Division of the Society for Plastics Engineers for their paper entitled "Modeling Relaxations in Polymers with Atomic Level Detail", presented at ANTEC '97, the Annual Technical Conference of SPE, which took place in Toronto, CA, in May of this year. Congratulations to all on this highly regarded honor!

Department Events

Good Cheer and Holiday Spirit Warm the Building 66 "Hearth"

by Greg Sands

Last Friday's Holiday festivities hosted by the Department of Chemical Engineering, brought plenty of food, laughter and holiday spirit to the Course X community as the GSC, students, faculty and staff once again pulled off a fabulous afternoon and evening of comedy, great food, games and music. The fun began with the annual "skits" held this year in 54-100. This year's feast of irreverent humor featured indescribable appearances by "Darth" Tester, Luke Infinitecorridor Walker, and a host of other surprise guests. (Watch the January Course X News for more on the skits!)

Following the skits, the party moved over to Building 66, where a feast of Caribbean specialties from...
Rhythm & Spice, and a cornucopia of other great food awaited the hungry throng! The annual Kid's Corner in 66-110 provided plenty of giant cookie decorating, face painting and pizza eating fun for families of all ages. The annual Baking Contest was adjudicated under the scrutinizing palates of judges Mike Mohr, Elaine Aufiero, Aleks Engel and Gerti Gillen. 1st Prize in the "Squares" category was Wendy Koegler. 1st Prize in the "Cookies" category, was Bill Dalzell and 1st Prize in the "Cakes" category was Mike Modell. Congratulations to all the winners! (Thanks to Nancy Zoeller for this late-breaking news item!)

Following the baking contest, the jolly one himself made an appearance with the help of Grad student Howard Covert, who brought gifts and just the right dose of "Santa" cheer and warmth to the proceedings.

The food and fun rolled on, with the annual piñata challenge bringing out some of the department's finest swordspersons large and small, who each tried their hands at relieving that rascally papier mâché candy cane of its sugary burden! The death blow was finally struck by Alan Hatton, and the goodies within were enjoyed by all. The evening was drawn to a festive close with the hearty rendering of Christmas carols, led by Cathy Labelle and her able crew of Christmas carol catalysts.

Special thanks to Ann Schmitz, Peter Moore, David Dewitt, Michael Caplan, and Terry Johnson of the GSC, for all of their tremendous work, and the many others for their efforts, that made this year's holiday party a smashing success!

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Course X-Tras

ChemE Wins Intramural Football Championship!

by Eric Fallon

Your ChemE intramural football team brought home the B League title with an 8-0 win over HST in the championship game on Nov. 22nd. The "X-Men" played several games in the wind, rain, mud, and snow to emerge on top of the 25-team league, most of which were fielded by fraternities and independent living groups. They even won a game when they were shorthanded by one player!

Key contributors were Chase Orsello, Casim Sarkar, Craig Boyce, Dave Dewitt, Pat Walton, Brian Goodlin and Mark Stewart at receiver, with Greg Dudley providing the cannon at quarterback. Jeff White, Garrett Sin, John Lettow, Mike Mulqueen, Josh Taylor, and Randy Myers did the dirty
work on the offensive and defensive lines. **Mark Powers, Mike Caplan, John Santini**, and **Eric Fallon** rounded out the defense.

**ChemE Goes to Letterman!**

*by Janet Fischer*

What had the potential to be an herculean hoax turned out to be good fortune for several ChemE graduate students during Thanksgiving week. In early November, the Student Office received a phone call from the Late Show starring David Letterman, asking if some ChemE graduate students would be interested in attending a taping on November 26th. Initially skeptical, **Elaine Aufiero** turned the message over to **Janet Fischer**, who was equally skeptical! Upon calling back the number, however, Janet was able to confirm that this was THE Late Show, and they *were* definitely interested in having ChemE's in the studio audience. Apparently, Dave likes college audiences, and frequently invites college groups to his shows.

Thirty free tickets were offered, and were advertised over the E-Mail list. They were all spoken for in less than 24 hours. The show is taped from 5:30 to 6:30 at the Ed Sullivan Theatre in Manhattan, and the students had to get themselves there on a hectic travel night before Thanksgiving. It aired that evening and featured Stupid Pet Tricks, Anthony Edwards, and Joost Something or Other, who is a food artist. Bring me a piece of fruit, and I can explain further, for those of you who are interested.

I have yet to speak to anyone who was actually there, but can confirm that at least a few ChemE students were spotted in the studio audience. I saw **Terry Johnson** (on the aisle), **Steve Vitale**, **Brett Cruden**, **Arpan Mahorowala** (chewing gum!), and **Tim Benish**. What happened to **Randy Weinstein**, who was carrying along a souvenir MIT Beaver to give to Dave, and the rest of our illustrious group? Follow-up to this late-breaking story will appear in the next issue of Course X News!

**MIT Library News**

**New Library Services Now Available**

The Web version of ISI Citation Index, Web of Science, is now available on MIT Libraries Database page. The URL is [http://libraries.mit.edu/lists/databases.html](http://libraries.mit.edu/lists/databases.html).

The Web version has indexes and abstracts for 5,300 major science and engineering journals, 1,700 social science journals and 1,100 arts and humanities journals from 1992 to the present.

Also, a table of contents service, UnCover Reveal, is now available. UnCover Reveal indexes over 17,00 journals; one can specify up to 50 journal titles for which they will regularly receive tables of contents.
via e-mail, as well as 25 keyword searches that will be run against the UnCover database's new contents weekly. The instructions to subscribe to this service are at: http://uncweb.carl.org/reveal/revdirec.html.

Because MIT Libraries has acquired a Site License, you will not need to fill in any account information in order to subscribe to this table of contents service.

For further information, please contact:
Erja Kajosalo
Chemistry Librarian
MIT Engineering and Science Libraries
Phone: (617) 253-9795 E-Mail: kajosalo@mit.edu

Opportunities

Support Staff Opportunities

HR @ MIT: Working Towards Our Future

January may seem far away, but it's not too early to start thinking about the wonderful range of activities planned for IAP.

The Personnel Office and the Human Resource Practices Development team have designed a series of sessions during IAP that highlight working at MIT now and in the future. These talks and panel discussions focus on career development, new ways of working, and other initiatives developed over the past year to support the changing needs of MIT's workforce and new organizational structures.

More information will be available in the IAP Guide which will be distributed across campus shortly. Or see the HRPD team web site at http://web.mit.edu/reeng/www/hrpd.

We look forward to seeing you in January!

Peter J. Narbonne
Community Outreach Coordinator
Human Resource Practices Development Team
Massachusetts Institute of Technology
77 Massachusetts Ave.
Career Development Opportunities

Workshop: Preparing Engineering Faculty of the Future

Through grants from the National Science Foundation, Carnegie Mellon University will be hosting our third week-long workshop to help prepare engineering Ph.D. students and first year faculty members for careers in academia. The Engineerin Education Scholars' Workshop will be held July 19-24, 1998.

The workshop at CMU addresses many of the challenges new faculty members face such as designing courses, developing effective teaching strategies developing a research program, and obtaining funding for research. The workshop also discusses issues pertinent to engineering ethics, diversity in engineering, and student retention.

For more information please contact:
Debbie Meyers Brodhecker, Workshop Coordinator
Civil & Environmental Engineering
119 Porter Hall
Carnegie Mellon University
Pittsburgh, PA 15213 Phone: (412) 268-8697/FAX: (412) 268-7813
E-Mail: irvine+@andrew.cmu.edu

Applications must be received by January 26, 1998.

For more about the Environmental Institute at Carnegie Mellon, visit: http://www.ce.cmu.edu/EnvInst/

Conference: Research and Technical Careers in Industry
Procter & Gamble Research and Development

This year's all-expense paid conference will be held June 13-16, 1998.

It provides doctoral and postdoctoral students with a clear picture of the career opportunities,
expectations and challenges that exist in industrial research. Participants will learn about techniques and skills required to successfully execute and manage research and product development, explore professional growth and individual development opportunities, and learn about the realities of cultural and workforce diversities.

This unique opportunity to get an inside view of industrial R&D will be offered to a limited number of candidates. Applicants must have a doctoral degree or expect to receive one by June 1999. Preferred disciplines are chemistry, life sciences (including medical degrees) toxicology, and chemical engineering. Only African-Americans, Hispanic or Native American candidates who are US citizens or permanent residents will be considered.

For further information, please contact:
Marlene Roeper
Research & Product Development
P.O. Box 538707
Cincinnati, OH 45253-8707
Phone: (513) 627-2318
E-Mail: rescareersconf/im@pg.com

For more about Proctor & Gamble's R & D, visit: http://www.pg.com

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**Summer Opportunities**

**Internship: Summer internship on Cape Cod with high-performance/high-reliability small computer manufacturer**

Compensation: $2,000 + Housing
Walk to the water
Walk to work
Approx. 1 hour from Boston
Minimum Commitment: 2 months
Expected hours: 50 hrs/week expected
Responsibilities: What you can handle
Requirements:

- 4.5 or higher GPA this year
- 1500 or higher combined SAT/Aptitude scores
Excellent problem-solving skills
Good self-discipline & management needed to thrive in a high-stress environment
Willingness and ability to do mundane physical labor, as well as mental gymnastics
Common sense and a practical approach
General knowledge of IBM compatible PC's a plus, but not a requirement
General knowledge of microprocessors (80x86 family), DOS, Windows, Novell, NT, 95 and Linux helpful
Good ability to communicate in English and/or Chinese would be a plus
Self-motivation, honesty, attention to detail, and a cheerful attitude are necessities
Ability to learn rapidly

References and interview required:
Phone: (508) 759-8400
E-Mail: HnH8400@aol.com

For more about Hammond & Hammond, Inc., visit: http://www.icca.org/firms/f2876.htm

Non-Profit Opportunities

PROGRAM DIRECTOR: Environmental Advocates, an environmental-policy-oriented non-profit organization based in Albany, NY, has an opening for a Program Director for Energy and Clean Air:

Position requires an energetic, self-initiating advocate with excellent written and oral communication skills, to direct a program promoting clean air and clean energy campaigns, including electric industry restructuring, low-emission vehicle and clean-power projects.

Candidates must have a solid understanding of the electric utility industry, the federal Clean Air Act and governemenal processes. Experience in lobbying, grassroots environmental campaigns, and the media are also required. Salary: high twenties to $30,000 depending on experience.

Interested parties should contact Laura Haight at (518) 462-5526

For more about Environmental Advocates, visit: http://www.envadvocates.org/

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Industrial Opportunities

Project Engineer & Associate Project Engineer

Bush Boake Allen (BBA), a subsidiary of Union Camp, a top ten global flavor/fragrance firm with operations in over 40 countries, invites resumes for the positions of Project Engineer and Associate Project Engineer at its Jacksonville Florida production facility. The Jacksonville site is one of the two largest production sites in BBA and features a wide range of unit operations. The Jacksonville site is intensive in distillation and reaction engineering with equal emphasis on batch and continuous technologies.

- Distillation and control analysis
- Automation
- Capital Project Development
- Process Safety Management
- Environmental Improvement Initiatives

Candidates must be capable of working on multiple projects and communication skills must be excellent. Opportunity exists for travel and temporary foreign assignments.

Requirements:

- B.S. Ch.E. from ABET-accredited engineering college
- Self Starter with excellent communication skills
- Positive track record in process control work

Desired attributes:

- EIT Status
- Foreign language skills
- Good Business acumen or education

To apply for either position, please contact: Jacon Mabry at (904) 249-2818 ASAP!
E-Mail resumes to: staffing@compustaff.net

For more about Bush Boake Allen, visit: http://www.bushboakeallen.com/
Grad Student Opportunities

The national Coro Fellows Program in Public Affairs is currently accepting applications for its 1998-99 Fellows class (deadline is February 11, 1998). If you are completing your undergraduate or graduate studies or have a number of years of work experience, the Fellows program may be a critical next step in your career.

The Coro Fellows Program in Public Affairs is a nine-month full-time post-graduate leadership training program offered in New York, San Francisco, Los Angeles and St. Louis. Fellows are provided a unique opportunity to develop an understanding of public policy and decision-making by working closely with individuals and institutions that influence life in the public, private and non-profit sectors. Fellows complete internships in a variety of sectors, participate in group and individual projects, and attend intensive weekly leadership training seminars. We seek motivated candidates with demonstrated leadership potential and a commitment to public service.

Extensive information on the Coro Fellows Program is available at their web site: http://www.coro.org.

For more information, contact:
Patrick Mispagel
Coro Eastern Center
44 Wall Street, 21st Floor
New York, NY 10005
Phone: (212) 248-2935 x112
E-Mail: pmispagel@coro.org

Post-Doctoral Opportunities

The Lawrence Livermore National Laboratory's Chemistry and Material Science Department has a post doctoral position available for an individual to support the Laboratory's National Ignition Facility (NIF) Project.

Lawrence Livermore National Laboratory (LLNL) is a world-renowned research and development center. The mission of the Laboratory is to serve as a national resource of scientific, technical, and engineering capability with a special focus on global security, global ecology and bioscience. The Laboratory's mission demands a highly skilled and flexible workforce.
The National Ignition Facility (NIF) Project at LLNL is currently constructing the world's largest laser. This facility will be used in inertially confined nuclear fusion experiments. A significant part of this job is development of state-of-the-art materials and processing techniques to fabricate the large number of laser optical elements required.

The successful candidate will carry out research aimed at developing a process to provide low cost optical films/coatings to protect high value laser optics. Research will initially focus on evaluation of commercial melt extrusion processes to minimize stress birefrigence and flow instabilities. A Ph.D in chemical engineering, material science or related fields is a prerequisite. The successful candidate should be familiar with experimental methods to elucidate the relationship between polymer processing and optical performance. In addition, the successful candidate should have a demonstrated ability to employ, or possibly develop, mathematical models which describe the pertinent physics related to melt extrusion processes.

LLNL offers a challenging work environment and a competitive salary/benefits package.

For consideration, send your resume to:
Pamela Whitman
Lawrence Livermore National Laboratory
Laser Materials and Optics Technology
P.O. Box 808, L-487 RPOCH4105
Livermore, CA 94551.

Inquiries may be electronically forwarded to Pamela Whitman at whitman2.llnl.gov.

U.S. Citizenship and the ability to obtain a Department of Energy clearance is required.

Dr. John Kennedy at the Argonne National Laboratory-West is seeking a post-doctoral associate(s) to conduct independent research into aspects of the chemistry and physics of metals volatility and micro/nano particulate (aerosol) formation. The work to be performed is in relation to thermal treatment of materials and, in particular, radioactive materials (i.e. spent nuclear fuel treatment processes).

The position(s) require a highly motivated individual with the proven ability to effectively carry through a research project under minimal supervision. Candidates must be willing to work with radioactive materials and must have received a Ph.D. not more than 3 years prior to the start of the appointment. A high level of communication skills is desired. The required field of expertise (or extensive experience) is in the characterization of solid state materials (x-ray and neutron diffraction electron microscopy, surface techniques, etc.).

The position(s) are initially for one year with the possibility for yearly renewal for up to three years. Per annum salary range is $34-57K.

US Citizenship is required in order to meet the US Dept. of Energy eligibility requirements for access to
classified matter.

Location: Argonne National Laboratory (West) near Idaho Falls, ID

The area: Idaho Falls is located in the heart of one of the most scenic recreation areas in the country with Sun Valley Jackson Hole, and Yellowstone and Teton National Parks nearby.

Any interested and qualified candidates should send their resume to:
Dr. John Rory Kennedy
Postdoctoral Position #120908
Argonne National Laboratory-West
P.O. Box 2528
Idaho Falls, ID 83403-2528
E-Mail: rory@kennedy@anl.gov

**Chemists/Biologists:** Immediate openings for Synthetic polymer chemists, Cell biologists with expertise in cell culture, molecular biologists and biomaterials scientists and biomedical engineers with experience in animal surgery and in vivo biomaterials evaluations.

Where: New Jersey Center for Biomaterials and Medical Devices
Starting Salaries: $30K/Postdoc, $40K/Research Associates

The successful candidate(s) will be a hard-working, reliable, and highly skilled person with an open and outgoing personality.

To apply, please contact:
Prof. Joachim Kohn
Wright Labs
Department of Chemistry
Rutgers University
610 Taylor Road
Piscataway, NJ 08854-8087
Phone: (732) 445-3888
Fax: (732) 445-5006
E-Mail: kohn@rutchem.rutgers.edu

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**Academic Opportunities**
The Department of Chemical Engineering at the University of New Hampshire invites applications to fill a tenure-track position at the assistant professor level starting either Spring or Fall 1998. Teaching interest in plant design preferable. Ability to develop funded research essential. Ph.D. and B.S. in Chemical Engineering required. There is also a possible temporary Faculty-in-Residence position for Spring 1998.

Send resume to:
Prof. Stephen Fan
Department of Chemical Engineering
Kingsbury Hall
33 College Road
Durham, NH 03824
TEL: (603) 862-3654
Fax: (603) 862-3747
E-Mail: sstf@christa.unh.edu

Applications will be accepted until the position is filled.

For more about the University of New Hampshire, visit: http://www.unh.edu/

For more about the University of New Hampshire's Department of Chemical Engineering and this position, visit: http://unhinfo.unh.edu/chemical-engineering/index.html

Faculty: Dartmouth College's Thayer School is both a department of Engineering Sciences and a graduate professional school of engineering. Degrees granted include an A.B. degree, ABET-accredited B.E. degree, M.S. and Ph.D. degrees in Engineering Sciences, as well as a Masters of Engineering Management. Our academically diverse faculty of approximately 30 is dedicated to intellectual pioneering in teaching, research, and design. Within an interdisciplinary framework, over a dozen faculty are active in teaching and research in chemical & biochemical engineering, with focus areas including biochemical, biomedical and environmental engineering, material science, fluid mechanics, and thermodynamics.

Candidates will be evaluated based on their potential to establish an internationally-recognized research program and to excel as a teacher/educator. We are particularly interested in candidates who:

1. contribute to building a distinctive research strength involving biological production of commodity products from sustainable resources,
2. have interests and skills that complement the character and organization of the school. The level of appointment will depend on experience and qualifications.

A cover letter and c.v. should be sent to:
Review of candidates will begin on February 1, and will continue until the position is filled.

For more about Dartmouth College's Thayer School of Engineering, visit: http://thayer.dartmouth.edu/thayer/

For more about this postion, visit: http://thayer.dartmouth.edu/thayer/Faculty+Research/open-pos.html

Faculty (25): University of California at Riverside Bourns College of Engineering invites applications for tenure-track or tenured faculty positions in Chemical and Environmental Engineering. The Chemical and Environmental Engineering program currently consists of 7 faculty with research interests in biotechnology and environmentally sound process engineering and manufacturing. The College now has about 25 faculty members and has commitments to hire an additional 25 faculty members over the next five years. Undergraduate enrollment is expected to increase to 900 and graduate enrollment to 170 in this time frame. The external research funding for the College in 1996 was in excess of seven million dollars. (http://engr.ucr.edu)

The successful applicants should be prepared to establish a vigorous, high-quality program. Although all areas of research will be considered, areas of special emphasis are:

1. Biochemical Engineering: environmental biotechnology, tissue engineering, and biomaterials;

Applicants should have a Ph.D. in Chemical or Environmental engineering or a related field. Candidates for a junior position should demonstrate evidence of outstanding potential in research and teaching. Candidates for a senior position must have established an exceptional record of achievement in research and teaching. Salary is commensurate with qualifications and UC pay schedules.

Send application with resume, names and addresses of at least three references, and a statement of research and teaching objectives to:

Chemical/Environmental Search Committee Chair
Bourns College of Engineering
University of California
Assistant Professor: Applications are invited for a three-year contractual position at the rank of Assistant Professor. The candidate must hold a bachelor's degree and a Ph.D. in chemical engineering.

The duties include the teaching of undergraduate and possibly graduate chemical engineering courses and participation in departmental and university activities. While research is considered of less importance for this position, the successful candidate will be encouraged to apply for research funds and engage in research activities.

The department plans to fill this position by May 1st, 1998.

Applications should be received by February 27, 1998.

Interested applicants should send their c.v. and the names of at least three references to:
Dr. V. Hornof, Chairman
Department of Chemical Engineering
University of Ottawa
P.O. Box 450, Station A
Ottawa, ON K1N 6N5
Phone: (613) 562-5772
Fax: (613) 562-5172

For more about the University of Ottawa, visit: http://www.uottawa.ca

For more about the University of Ottawa's Department of ChemE, visit: http://www.genie.uottawa.ca
Assistant/Associate Professors (2): The Chemical, Bio and Materials Engineering Department at Arizona State University has two openings for Bioengineering faculty members in the areas of Biomaterials and Molecular & Cellular Bioengineering at either the Assistant or Associate Professor levels. Qualified candidates must have an earned Ph.D. in Bioengineering, Materials Science and Engineering, Chemical Engineering, or a closely related area. A successful candidate(s) must be able to teach existing undergraduate and graduate courses in Biomaterials or Molecular & Cellular Bioengineering and related engineering courses and develop new courses in the candidate's specific area of research expertise. The successful candidate(s) at the Asst.Prof. level must have a strong interest in teaching at the undergraduate and graduate level. The successful candidate(s) at the Assoc. Professor level must have a demonstrated potential to develop an independent, externally funded research program in the candidate(s)'s area of research expertise. At the Assoc. Professor level, successful candidate(s) must have demonstrated evidence of developing an independent, externally funded research program in the candidate's area of expertise.

It is desirable for the candidate(s) to have background and expertise in Biomaterials or Molecular/Cellular/Tissue Bioengineering with active programs in one of these areas. A record of publications in scholarly journals in Biomaterials or Molecular/Cellular Tissue Bioengineering and related journals is also desirable at both the Assistant and Associate level.

Applications must be received by January 15, 1998, or the first of each succeeding month until the position is filled.

Candidates must send a formal letter of application consisting of a letter expressing interest in the position, a current c.v., a summary of past activity and future plans for research, teaching and service activities, and the names, addresses and telephone numbers of four references to:

Dr. Vincent Pizziconi, Chair
Bioengineering Faculty Search Committee
Department of Chemical, Bio and Materials Engineering
Arizona State University
Tempe, AZ 85287-6006
Phone: (602) 965-1071
E-Mail: vincent.pizziconi@asu.edu

For more about Arizona State's Department of Biomaterials and Molecular and Cellular Bioengineering, visit: http://www.eas.asu.edu/~cbme/

Assistant Professor: Lamar University's Department of Chemical Engineering invites applications for a tenure-track position to be filled at the Assistant Professor level, starting Fall, 1998. This position requires excellence in both teaching and research. Applicants must have a Ph.D. in Chemical Engineering, and be US citizens or permanent residents. Candidates with industrial experience and P.E.
registration are preferred. All research areas will be considered, but preference will be given to candidates with experience in (1) Reaction engineering and (2) Environmental engineering. All applications must include: c.v., a statement of research and teaching goals, and the names and phone numbers of three references.

Please send applications to:
Prof. Jack R. Hopper, Chair
Search Committee
Department of Chemical Engineering
Lamar University
P.O. Box 10053
Beaumont, TX 77710
Phone: (409) 880-8784
Fax: (409) 880-8791

For more about Lamar University, visit: http://www.lamar.edu/

For more about Lamar's Department of Chemical Engineering, visit: http://www.lamar.edu/lamar/colleges/engineer/chemeng.html

Assistant/Associate Professor: The Faculty of the College of Engineering and Computer Science at Syracuse University invites applications for a tenure-track position at the assistant or associate professor level in the broad areas of bio-environmental engineering. The applicant is expected to have a specialization in one or more of the following subareas: bioremediation of hazardous waste, biological wastewater treatment, treatment/management of industrial or hazardous wastes, biodegradation of pollutants and biological processes in natural and polluted aquatic and soil environments. The position will involve undergraduate and graduate teaching, the establishment of a nationally recognized research program, and professional service. The successful candidate will be expected to actively participate in the formation of the "Center for Environmental Science and Engineering" (CESE) at Syracuse University.

The multidisciplinary nature of the CESE is evidenced by the central role it will play in two departments. Civil & Environmental Engineering and Chemical Engineering & Materials Science, and by its strong connections to departments outside of engineering (including Earth Sciences Biology, and Chemistry) and the SUNY College of Environmental Science and Forestry. The successful candidate will demonstrate the qualities of creativity, leadership and initiative that are characteristic of a successful scholar at a student-centered research university. A Ph.D. in engineering is preferred.

To apply, send c.v., statement of research and teaching interests and goals and a list of three potential references to:
Prof. Raymond D. Letterman, Chair
Search Committee
Assistant Professor: Teach undergraduate and graduate food and biological process engineering courses. Conduct fundamental and applied research in biological and food engineering. All relevant research areas will be considered. Research which addresses adding value to products and co-products of food and biotechnology industries is particularly desirable. Expected to develop innovative teaching and internationally prominent research program. The position involves substantial collaborative and interdisciplinary opportunities. The position is an academic year, tenure-track, teaching and research appointment.

Qualifications: Earned doctorate in an engineering program with specialization in food, bioprocess, biochemical, or biological phenomena. Teaching, postdoctoral or industrial experience desirable.

Closing date for applications: January 15, 1998, or until positions is filled.

Application materials: Letter of interest, transcripts, three letters of reference. Include statement outlining teaching philosophy and teaching goals.

To apply contact:
Prof. Martin R. Okos, Chair
Search Committee
Agricultural and Biological Engineering Department
1146 ABE
Purdue University
West Lafayette, IN 47907-1146
Phone: (765) 494-1211
Fax: (765) 496-1115
E-Mail: okos@ecn.purdue.edu

Assistant/Associate Professor (2): Rowan University has openings for two tenure-track faculty
positions in Chemical Engineering at the Assistant or Associate Professor rank. A doctorate in chemical engineering is required. A specialization in process dynamics and control, process simulation and design, transport phenomena, or polymer processing is required. Successful applicants should also have applied their specialization to an emerging area of chemical engineering such as: advanced materials, environmental systems, bioprocessing, advanced separations, or specialty chemicals manufacturing.

Interest in inter/multidisciplinary courses and laboratories, and interest in incorporating engineering science and design into lower level courses is desired. Strong written and oral communication skills are required. Preference will be given to applicants with teaching and laboratory development experience. The candidate is expected to build upon relationships developed with local industries.

Starting date for these positions is September 1, 1998. Interested candidates are invited to submit a letter of application, a c.v., and a list of at least 3 references to:

Prof. C. Stewart Slater, Chair
Chemical Engineering Faculty Search Committee
Rowan University
201 Mullica Hill Rd.
Glassboro, NJ 08028-1701
Phone: (609) 256-4631
Fax: (609) 256-4950
E-Mail: slater@rowan.edu

Review of applicants will begin on December 1, 1997 and continue until the position is filled.

For more about Rowan University, visit: http://www.rowan.edu

For more about RW's Department of Chemical Engineering, visit: http://sun00.rowan.edu

Assistant Professor: The Department of Chemical Engineering of the A. James Clark School of Engineering invites applications for a tenure-track faculty position preferably at the Assistant Professor level. The applicant should have a commitment to undergraduate and graduate teaching and be able to develop an internationally recognized externally funded research program with a potential for applications in environmental chemical engineering.

Applicants should submit a c.v., statement of teaching and research interests, and the names of three references to:
Prof. K.Y. Choi, Chair
Search Committee
Department of Chemical Engineering
University of Maryland
College Park, MD 20742
Coors Chair: Applications are now being accepted for the William K. Coors Chair in Chemical Engineering at the Colorado School of Mines. The Chemical Engineering Department is seeking an outstanding educator and scholar to fill this endowed chair. The mission of the Colorado School of Mines is education, research, and public service in materials, energy and the environment. The Chemical Engineering Department has a current enrollment of approximately 410 undergraduates, 60 full-time graduate students and post-doctoral students, and 15 faculty. The faculty is devoted to both teaching and research, and we are seeking an exemplar of these same attributes. Applicants should possess a Ph.D. in Chemical Engineering or a related field: no preference in terms of research specialty is specified.

Interested candidates for the Coors Chair in Chemical Engineering should send a letter of application and a copy of their c.v. to:
Colorado School of Mines
Office of Human Resources
Search #97-021400
1500 Illinois Street
Golden, CO 80401

For more information about the Colorado School of Mines, visit: http://www.mines.edu/Academic/chemeng/

Faculty (2): The Department of Chemical and Biochemical Engineering at the University of Maryland is seeking to fill two tenured or tenure-track faculty positions. Faculty candidates at the assistant, associate, or full-professor lever will be considered. Applicants must have a Ph.D. in chemical or biochemical engineering or in a closely related discipline. We seek outstanding candidates who have a commitment to excellence in teaching and who will develop and lead a research program with successful external funding. Research interests of the candidate should complement the Department's emphasis in biochemical and biomedical engineering. The Department has state-of-the-art facilities and is located in a new $26M building. Excellent opportunities exist for interaction with a number of federal laboratories and local industry. Interested candidates should send a resume, statement of teaching and research interests, and the names of three references to:
Prof. Douglas D. Frey, Chair  
CBE Faculty Search Committee  
Department of Chemical and Biochemical Engineering  
University of Maryland, Baltimore County  
1000 Hilltop Circle  
Baltimore, MD 21250  
Phone: (410) 455-3400  
Fax: (410) 455-1049  
E-Mail: dfrey1@umbc2.umbc.edu

Screening of candidates will start in February 1998 and will continue until the positions are filled.

For more about the University of Maryland/BC's Department of Chemical and Biochemical Engineering, visit:  
http://umbc7.umbc.edu/~marten/CBE/cbe-home.html

Faculty: The Speed Scientific School, the college of engineering at the University of Louisville, invites applications at all ranks for a faculty position in rapid prototyping. Candidates will be expected to maintain an active research program sponsored by industrial and public funding. Resources include a selective laser sintering machine 3-D laser digitizer, a hydrogen retort furnace, and an injection molding machine. Academic appointment is possible in an existing engineering department, consistent with the candidate's background and ability to contribute to the undergraduate and graduate curriculum.

Candidates must possess an earned doctorate with industrial experience encouraged. Applications will be received until the position is filled.

Send a c.v. and three references to:

Dr. William E. Biles, Chair  
Search Committee  
Speed Scientific School  
University of Louisville  
Louisville, KY 40292  
Phone: (502) 852-0086  
Fax: (502) 852-5633  
E-Mail: webile01@ulkyvm.louisville.edu

For more about the University of Louisville's Chemical Engineering Department, visit:  
http://www.spd.louisville.edu/dept/chemical/

Department Chair: Applications and nominations are invited for the position of Chemical
Engineering Department Chair, Texas Tech University. Candidates must have and earned Doctorate in Chemical Engineering (or a closely related field) and a BS in Chemical Engineering (or equivalent core curriculum experience). The desired candidate will have a demonstrated record of effective personnel leadership, creative research or development, and effective teaching. Significant industrial experience will be highly valued.

The Department has 10 faculty positions and about 250 undergraduates and 25 graduate students. It offers BS, MS and Ph.D. degrees in Chemical Engineering, provides Environmental Engineering courses, and is leading the College in internet-based instruction. Graduate program strengths are process control and optimization, polymer engineering, bioengineering and environmental engineering. On average, each professor has 9 years of industrial experience, supporting a strong applications emphasis to our undergraduate program, a development flavor to our graduate program and employment opportunities for our students.

Texas Tech University is a comprehensive state supported university (including Law and Medical schools) with approximately 25,000 students. There are about 2,300 undergraduate students, 500 graduate students, and 100 faculty in the eight College of Engineering departments.

Applications will be reviewed beginning on December 1, 1997, and the search will continue until the position is filled. Send a complete resume to:

Dr. Jon Bredeson, ChE Search Committee Chair
College of Engineering
Texas Tech University
Lubbock, TX 79409-3102
Phone: (806) 742-3553
Fax: (806) 742-3552
E-Mail: jbredeson@coe2.coe.ttu.edu

For more on Texas Tech's Department of Chemical Engineering, visit: http://www.che.ttu.edu

Assistant Professor: The Department of Chemical Engineering at Auburn University invites applications for a tenure-track faculty position. The Department seeks outstanding candidates who have a Ph.D. in Chemical Engineering or appropriate allied field. The successful candidate will demonstrate a strong commitment to both excellent research and excellent teaching. Preferred research areas include process and information systems (process control, process analysis, synthesis and design, and chemical engineering information systems) or outstanding faculty prospects in other areas who are interested in teaching in the broad areas included within process and information systems. However, we are open to outstanding individuals in any area. Candidates should send a resume, description of future research plans, previous research accomplishments, teaching interests, and names of three references to:

Dr. Robert P. Chambers, Department Head
Assistant/Associate Professor: The Department of Chemical Engineering at New Mexico State University is seeking applicants for one tenure-track faculty position at the rank of Assistant or Associate Professor, beginning in the Fall semester of 1998. We seek outstanding applicants, who have a distinguished academic record, a commitment to excellence in both undergraduate and graduate teaching, and who will conduct a nationally recognized, externally-funded research program. Applicants must have a Ph.D. in Chemical Engineering or closely related field. Candidates with industrial experience and P.E. registration are preferred. All applications must include: c.v., a statement of research and teaching goals, and three letters of recommendation. In order to ensure full consideration applications must be received by January 1, 1998. Applications will be accepted after this date until the position is filled. Position subject to available funding.

Offer of employment contingent upon verification of an individual's eligibility for employment in the United States.

Please send applications to:
Chair, Search Committee
Department of Chemical Engineering
New Mexico State University
Box 30001, MSC 3805
Las Cruces, NM 88003-8001
Phone: (505) 646-1214
Fax: (505) 646-7706
E-Mail: rbhada@nmsu.edu

Assistant Professor: The Department of Chemical and Bio-Resource Engineering at the University of British Columbia invites applications for a tenure-track appointment at the Assistant Professor level starting July 1, 1998. Applicants should have a Ph.D. in Chemical Engineering or in a closely related field and have a strong commitment to effective teaching in one or more of the following areas: process simulation, process synthesis, plant design and environmental engineering. Relevant industrial experience would be an asset and eligibility for registration as a Professor Engineer is essential.

The successful candidate must have the ability and commitment to initiate a vigorous research program in a corresponding area of chemical engineering.
Applications, including a c.v., a short statement of teaching and research interests, and the names and addresses of at least three references, should be sent to:

Dr. Brude D. Bowen, Acting Head
Department of Chemical Engineering and Bio-Resource Engineering
2216 Main Mall
Vancouver, BC V6T 1Z4
Canada
Phone: (604) 822-3238
Fax: (604) 822-6003
E-Mail: bruce.bowen@mtsg.ubc.ca

For more about the University of British Columbia, visit: http://www.ubc.ca/

For more about UBC's Department of Chemical and Bio-Resource Engineering, visit: http://www.chml.ubc.ca/welcome.htm

Assistant Professors (2): Two faculty positions at the Assistant Professor level at the University of California, Santa Barbara in Chemical Engineering are available effective July 1, 1998. Candidates must have a Ph.D. in Chemical Engineering or a related field, but are not restricted to particular areas of research. We seek outstanding individuals who will contribute to the academic programs of the department and have the potential to become leaders in their fields of research. Please send resume, reprints of representative publications, a statement of research plans, and a list of four references to:

Prof. L. Gary Leal, Chairman
Department of Chemical Engineering
University of California/Santa Barbara
Santa Barbara, CA 93106
Phone: (805) 893-8510
Fax: (805) 893-7518
E-Mail: bonnie@engineering.ucsb.edu

Applications must be received before: December 10, 1997
Better late than never!

More about the Department of Chemical Engineering at UCSB, visit: http://eci2.ucsb.edu/ce/

Faculty: The Department of Chemical Engineering at Rice University seeks outstanding faculty candidates. The position requires excellence in both teaching and research. Preferred research areas are computational chemical engineering, advanced materials, and pollution prevention. Level of
appointment depends on qualifications. Please send resume, list of three references, and a research plan to:

Chair, Faculty Search Committee  
Department of Chemical Engineering (MS-362)  
Rice University  
Houston, TX 77005-1892  
Phone: (713) 527-4902  
Fax: (713) 285-5478

Direct questions to:  
Professor C. Miller  
camill@rice.edu (713) 527-4904  
http://www.ruf.rice.edu/~che/new.html

Assistant./Associate Professor: Rose-Hulman Institute of Technology's Chemical Engineering Department

- Tenure-track position  
- Ph.D. in Chemical Engineering Required  
- Required to teach UG and Graduate courses  
- Excellence in teaching and an interest in the individual student are required.  
- Rank and salary dependent upon qualifications

Rose-Hulman Institute of Technology, founded in 1874, is a small (1500 students) private, coeducational predominantly undergraduate engineering college whose mission is to provide its students with the best possible preparation for careers in engineering and science. Rose-Hulman has an outstanding student body with faculty, facilities, and working environment to match.

Please send c.v., names of three references and other pertinent materials to:

Chair, Search Committee  
Chemical Engineering Department  
Rose-Hulman Institute of Technology  
5500 Wabash Avenue  
Terre Haute, IN 47803  
Phone: (812)877-8430  
Fax: (812) 877-3198  
E-Mail: Stuart.Leipziger@Rose-Hulman.edu  
URL: http://www.rose-hulman.edu/Class/cheme/HTML/index.html

Jr. Faculty: Division of Engineering and Applied Sciences, Harvard University
Junior Faculty position in Fluid Dynamics Applications and nominations are invited for a tenure-track junior faculty position in fluid dynamics, to begin in 1998.

Responsibilities include active participation in Harvard's undergraduate degree program in Engineering Sciences as well as in research and teaching at the graduate level.

Applications are welcome from individuals with research interests in experimental, computational, and/or theoretical aspects of areas such as: fluid transport processes, reactive flows, multiphase flows, materials processing, biomedical fluids, and complex fluids. A Ph.D. is required.

Applicants should submit, before March 1, 1998, a c.v., a statement of research and teaching interests, and the names, addresses (including E-Mail), and telephone numbers of three references to:

Professor Howard A. Stone  
Chair of the Fluid Dynamics Search Committee  
Pierce Hall 308  
Division of Engineering and Applied Sciences  
Harvard University  
Cambridge, MA 02138

For more information, visit these Harvard web sites:  
http://das-www.harvard.edu/users/faculty/Evans/HAS.html  
http://www.deas.harvard.edu/research/Research_frame.html

**Assistant Professor: Columbia University,** Department of Chemical Engineering and Applied Chemistry, announces two tenure-track openings to be filled preferably at the assistant professor level, by September 1998. Doctorate required and postdoctoral experience desirable. Candidates with backgrounds in all areas having broad relevance to chemical engineering or applied chemistry will be considered. Successful candidates are expected to develop research programs that build on existing institutional strengths, are collaborative, and are capable of attracting external funding. Candidates should submit a plan of research and a statement of teaching objectives that demonstrate commitment to undergraduate and graduate education; three letters of recommendation; a c.v.; academic transcripts; and reprints of up to two research papers representing the candidate's principal scientific efforts to date.

Reply to:  
Professor Nicholas Turro, Co-chairman  
812 Mudd Building  
500 W 120 St.  
New York, NY 10027

For more about Columbia University, visit: [http://www.columbia.edu](http://www.columbia.edu)
Assistant/Associate or Full Professor: The Department of Chemical and Petroleum Engineering, University of Pittsburgh, invites applications for a tenure-track position at the assistant professor or full professor level, to be filled starting August 26, 1998. The applicant should have (or expect to receive before taking the position) a Ph.D. in chemical engineering or a related field, a strong commitment to undergraduate and graduate education, and the ability to develop an internationally recognized research program.

The research area is open, however, applicants in catalysis, materials synthesis, biochemical engineering, and environmental issues relating to energy are especially encouraged to apply. The Department has 22 professors and a research expenditure level of ca. $3 million/yr, placing us in the top 20 federally supported departments in the US.

Please send by December 31, 1997, an application letter, CV, research plans, and the names of 4 references to:

Prof. J.G. Goodwin, Jr., Chairman, Search Committee
Department of Chemical and Petroleum Engineering
University of Pittsburgh
Pittsburgh, PA 15261
Phone:(412) 624-9630
Fax: (412) 624-9639
URL: http://www.engrpg.pitt.edu/~chewww/add.html

For more detailed information on any of the positions listed above, please see Elaine Aufiero in room 66-366.

The Final Word

Prof. Warren K. "Doc" Lewis (MIT Prof. 1910-48) was a much beloved figure who served as ChemE's first department head, back in 1920. The following comes from "A Dollar to a Doughnut", a brief but humorous collection of stories assembled by his former students over the years, and published in 1953 as
In the exam season spirit, here's a favorite from the collection:

On a train coming back from a consulting trip, Doc made up a fine blast furnace problem, but couldn't figure out how to work it himself. When Doc found that his assistant couldn't work it either, he suggested; "Let's give this problem on the final exam, maybe some dumb cluck will work it out for us!"

_Happy Holidays to all, and to all a good night!_

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**Thanks To...**

Prof. Armstrong, Elaine Aufiero, Prof. Brown, David DeWitt, Eric Fallon, Janet Fischer, Erja Kajosalo, Prof. Langer, Prof. Lauffenburger, Ilda Moura, Peter Narbonne, Carol Phillips, Elizabeth Reed, Prof. Rutledge, Ann Schmitz, Janet Snover, and Prof. Ying for their contributions to this month's _Course X News_!

Submissions for the _Course X News_ should be sent to:
Gregory Sands
Assistant for Publications, Payroll & Fellowships
MIT Administrative Services, 26-139
77 Massachusetts Ave.
Cambridge, MA 02139
E-Mail: _gsands@mit.edu_
Phone: (617) 253-0949
Fax: (617) 253-9894