Faculty Distinctions

On April 8th, 1999, Professor and Head of Chemical Engineering, Robert C. Armstrong will present a lecture at Rutgers University on the topic "Non-Isothermal Visoelastic Flows". This honorary lecture,
part of the "Rutgers Collaboratus IX", the Ninth Annual Merck Sponsored Distinguished Lectures, spotlights the cross-disciplinary and collaborative efforts of scientists in general, and chemical and biochemical engineers in particular. Previous honorary Collaboratus lecturers from the department are Professors Gregory J. McRae and Douglas A. Lauffenburger.

Department News

ChemE Stands Out In October Telethon

by Greg Sands
Assisted by Heidi Ganss, MIT Alumni Association

Belated recognition is due to all the participants in the Department's October 26th Telethon, which raised over $26,000 in pledges to the Department!

At the annual Telethon Thank-you Reception, held on November 18, 1998, at Boston's Museum of Science, Chemical Engineering and a number of individuals in the Department were recognized for their fund-raising achievements!

As a Department, Chemical Engineering outdid the rest of the Institute in three out of ten categories:

- Largest Percentage Increase in Number of Volunteers: 220%
- Largest Percentage Increase in Pledge Rate: 15%
- Most Volunteer Callers in One Evening: 35

Individuals recognized at the Reception include Grad Student Sonja Sharpe, who received the award for being the top recruiter for the FY99 Telethon Program and Mitch Anthamatten, who was recognized as the Top Caller!

Congratulations and a big thank you! to all you Telethon participants!

To Fly Where No Flutes Have Flown Before

by Greg Sands

Last Friday afternoon, January 29th part of the secret other life of ChemE's own Patsy Sampson, was
revealed! With the help of her ensemble of 19 flutists/flautists (you say "po-tay-to", I say "po-tah-to") and several fine guest musicians from the Berklee College of Music, Patsy brought music to life at building 7's "Dome Cafe". Ms. Sampson, a familiar face to all in Building 66, transferred to ChemE from MechE just a few months ago to work as the AA in our Headquarters Office, and Assistant to Professor Charles Cooney.

Patsy, who holds a Master's in Flute Performance from Boston Conservatory and degrees from Harvard and Grinnell College, conducted her group "Flutes@MIT" in a diverse concert, spanning over 300 years of music history. This relatively new group began as the "IAP Flute Choir" in January of 1997, and was so successful that it was quickly extended into the regular academic year gaining MIT Arts Council support soon thereafter.

The uniquely ethereal sound of massed flutes including the familiar "C" flute, as well as the more exotic Alto and Bass flutes, easily evokes images of angels flapping in the clouds and other heavenly apparitions. 20th century neo-romanticist Samuel Barber's popular "Adagio for Strings" may best typify Flutes@MIT's offerings in the ethereal realm, with its gradually widening river of ebbing and waning harmonic tension. Any adaptation of this orchestral "tour de force", poses a special challenge to wind instrumentalists but its essence was nevertheless conveyed with conviction and intensity by Patsy's "Flutes@MIT".

Two brisk contributions by W.A. Mozart - the Allegro con Brio from Symphony K.25 and Overture from "The Marriage of Figaro" -- demonstrated a different dimension of this group's musical potential. "Figaro" with its off-to-the-races character demands particular refinement in order to avoid "sudden weight gain", but the performance in this case, was commendably delicate and energetic!

Other works stretched the historical canvas farther backwards and forwards, with J.S. Bach's Canon for four voices, and of course(!), Pink Floyd's "Shine On Crazy Diamond" and "Wish You Were Here". Guest musicians Chris Luard, bass, David Palan, Jeremey Rosenberger, and Lance Valis, guitars, Tom Owen, keyboard and Jordan Holt drums provided authentic instrumentation to make Patsy's unusual Pink Floyd arrangement, complete!

Unmistakeable and haunting, the sounds of the solo alto and bass flutes are unfortunately a rarity in orchestral and chamber literature. Patsy's Pink Floyd "suite" included solos for each of these instruments as well as for the more familiar piccolo. Soloists included Grad student Julie Baldwin (Alto Flute), Jacob Strauss '01 (Bass Flute), Gabrielle Cayton '02 and Adora Lin '02 (Piccolos). A tip of the hat to Boston composer Jefferey Nottonson who kindly provided some consultations in the development of this arrangement.

The program ended with a summer-in-the-park favorite, Sousa's "Stars and Stripes Forever" with its famous piccolo solo, crisply played by Adora Lin '02. "Stripes" proved to be an appealing close to this distinctive and uplifting concert.
At last Friday's concert, I thought I heard Patsy say something like "I wasn't going to do this again this year" (i.e. the IAP Flute Choir) -- but I must have been mistaken! Let's keep her spirits up and make sure this annual concert happens again next year! It was a thoroughly enjoyable performance.

The concert was a true community effort, with generous financial contributions from Professor Charles Cooney, MechE Professors Timothy Gutowski and David Trumper, and others helping to cover some expenses.

Special thanks to the Chemical Engineering Department, the Architecture Department, the IAP Office, the Dome Cafe, (located in Building 7 on the 4th floor) and to Philip Tracadas for arranging video taping of the concert.

Many thanks for the extra help of all those who contributed!

Flutes@IAP usually meets only during the month of January, but is potentially available for performances during the academic year for special functions. If you heard it and liked it, and/or want to catch "Flutes@MIT" next time around, drop Patsy Sampson a line at patsys@mit.edu or 253-4562, or visit the "Flutes@MIT" Web site at http://web.mit.edu/patsys/www/flutes

'Til next year...

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Department Notices

_Encore!_ Sico Will Repeat Travel Rules Presentation

Ellen Sico from Travel has graciously agreed to give us another demonstration on Travel rules and procedures.

Workshop: Thursday, February 11, 1999  
10:00 - 11:00 AM in the Lewis Room (66-360).  
Michael Corcoran from OSP will join us.

The end of the workshop will feature a brief demonstration how you can obtain travel info in COEUS about a certain Research Project.

People who have been previously authorized to sign Travel Advances and Vouchers on their
Supervisor's account will no longer be able to approve until they are electronically authorized in the new system. Only people attending this workshop will be authorized for approval. If you cannot attend this meeting because of not being at MIT at this time, please let us know so that we can make special arrangements for you.

Thank you for your understanding, and we'll see you there.

**Refreshments will be served!**

For more information, contact:
Gerti Gillen, Fiscal Administrator
Phone: (617) 258-0624
Fax (617) 253-9894
E-Mail: ghillen@mit.edu

**Faculty Luncheon Meeting With Brown, Bacow**

Tuesday, February 16th, 1999
12:00 - 1:30 PM
Lewis Room (66-360)

Bob Brown and Larry Bacow will discuss the Report of the President and the Report of the Task Force on Student Life

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**Course Announcements**

**Spring 1999**

**18.356 Rotating Fluids**

General theory of rotating fluids; transient flows; boundary layers; nonlinear interactions; wave motion; stability theory. Application to technological and geophysical problems. A seminar format following a series of lectures to provide the basis of further inquiry.

For further information contact:
H.P. Greenspan

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MIT Events

MacVicar Day

You are invited to join the MIT MacVicar Faculty Fellows on Friday, February 5, 1999
3:00 to 5:00 PM
Bartos Theater (E15)

"Great Teachers, Great Teaching"
Lecture, panel discussion, reception
James O. Freedman, President Emeritus of Dartmouth College

For details about MacVicar Day, visit http://web.mit.edu/provost/macvicar/

Pre-Doctoral Opportunities

Undergraduate Awards Programs

POLYED
The joint education committee of the ACS Divisions of Polymer Chemistry and Polymeric Materials:
Science and Engineering

Undergraduate Organic Chemistry Award
An award for outstanding performance by an undergraduate chemistry major in the two-semester organic sequence is offered by POLYED. In 1996, 300 institutions presented awards consisting of a
certificate and a POLYED cap. For more information, faculty should contact:

William Feld  
Department of Chemistry  
Wright State University  
Dayton, OH 45435  
Phone: (513) 873-2511  
Fax: (513) 873-3301  
E-Mail: polycent@uwsp.edu

**Summer Research Scholarships**  
POLYED offers summer research scholarships of up to $2500 for undergraduate research at a student's home school or other college or university. Contact:

Steven Cohen  
N-2  
Amoco Polymers Inc.  
4500 McGinnis Ferry Road  
Alpharetta, GA 30202-3914  
Phone: (770)772-8680  
Fax: (770) 772-8332  
E-Mail: sacohen@amoco.com

**Undergraduate Research Recognition Awards**  
Outstanding undergraduate researchers whose projects involve polymer science are eligible for recognition by POLYED. Awards consist of a certificate and a $100 cash award. Faculty mentors should contact:

Rey Chern  
WP78-110  
Merck & Co., Inc.  
West Point, PA 19486  
TEL: (215/) 652-2816  
FAX: 215/652-2821  
E-Mail: polycent@uwsp.edu

For more about Award Opportunities through POLYED, visit [http://chemdept.uwsp.edu/polyed/](http://chemdept.uwsp.edu/polyed/)

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Post-Doctoral Opportunities

Adsorption and Diffusion in Porous Solids
Exxon Research and Engineering
Annandale, New Jersey

We are seeking a Post-Doctoral Researcher to join our team, which is developing state-of-the-art experimental techniques for quantitatively describing adsorption and diffusion processes within porous membrane and catalytic materials. The diffusion and adsorption of molecules within amorphous and crystalline solids is ubiquitous in hydrocarbon conversion and separation processes practiced by Exxon. This individual will be responsible for further advancing our analytical probes as well as developing modeling and simulation tools to interpret the observed experimental behavior.

The critical skills needed will be those typically found in Ph.D-level chemical engineers, physical chemists, or physicists that have had experience in experimental measurements and computer simulations. Expertise in molecular dynamics is highly desirable, as we intend to combine such simulations with the measurements to obtain a detailed understanding of the microdynamics of adsorption-desorption steps and of molecular transport within constricted pore spaces.

Additional information about the position can be obtained by contacting Dr. Sebastian C. Reyes at (908) 730-2533 or screyes@erenj.com.

Exxon offers an excellent working environment and a competitive compensation and benefits package.

Please send your resume and have three letters of reference sent to:

Exxon Research and Engineering Company
Route 22 East
Annandale, NJ 08801
Fax: (908) 730-3198

For more about Exxon Research and Engineering Company, visit http://www.exxon.com/exxoncorp/overview/companies/e_r_e.html

Catalysis/Surface Science Group
Chemistry Department
Brookhaven National Laboratory
Upton, New York

Qualifications: We are looking for individuals that have a strong background in the preparation, characterization and kinetic testing of oxide or zeolite catalysts. These individuals will carry out
experiments at facilities in the BNL Chemistry Department and beam lines at the National Synchrotron Light Source. The scientific projects will involve the use of state-of-the-art techniques (time-resolved XRD and XANES/EXAFS) for the *in situ* characterization of catalysts under relevant industrial conditions. (Rodriguez et al, J. Phys. Chem. B, 1998, 102, 1347; Norby and Hanson, Catal. Today, 1998, 39, 301).

Application Procedure: Candidates should send a CV, including the names of three references, to my address:

Dr. Jose A. Rodriguez  
Chemistry Department  
P.O. Box 5000  
Upton, NY 11973  
Phone: (516) 344-2246  
Fax: (516) 344-5815  
E-Mail: rodrigez@bnl.gov

For more about Chemistry at BNL, visit [http://www.chemistry.bnl.gov/](http://www.chemistry.bnl.gov/)

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### Industrial Opportunities

**Product Design & Development Scientist**  
Dupont Agricultural Products  
Wilmington, Delaware

**AG98-2610** Product Design & Development Scientist  
Qualifications (one of the following):

- A Ph.D in Physical Organic, Colloid or Organic Chemistry  
- A Ph.D in Chemical Engineering  
- Experience in technical areas related to formulation technology and development. An understanding of several of the following are required:
  - Solid-liquid interfacial properties, emulsions, suspensions, and rheology; particle technology with an emphasis on agglomeration, extrusion, wetting and dispersing, and mixing and blending  
  - Excellent communication skills.  
  - Ability to work effectively in team environments with biologists, regulatory,
Responsibilities: Research to design and optimize new and often novel commercial crop protection products to meet customer, regulatory and manufacturing requirements. Work will extend from laboratory development and optimization to scale-up and support of commercial manufacture. The successful candidate will also provide technical support to ensure quality for existing products as well as innovative ways to improve productivity.


Please send the application materials specified at the above URL to:

DuPont Human Resources  
AG98-2610  
Wilmington, DE 19898  
Fax: 1-800-631-2206

For more about careers at DuPont, visit [http://www.dupont.com/careers/looking.html](http://www.dupont.com/careers/looking.html)

Faculty Opportunities

Curriculum Development Award
POLYED: The joint education committee of the ACS Divisions of Polymer Chemistry and Polymeric Materials: Science and Engineering

Curriculum development awards of $10,000 and $2,500 are available from POLYED to improve the teaching of polymer science. Grants are made for the development of curricular materials or to assist institutions in offering courses in polymer chemistry. For more information contact:

Kris Matyjaszewski  
Department of Chemistry  
Carnegie Mellon University  
4400 Fifth Avenue  
Pittsburgh, PA 15213  
Phone:(412) 268-3209  
Fax: (412) 268-6897  
E-Mail: km3b+@andrew.cmu.edu
More detailed information available is at http://chemdept.uwsp.edu/polyed/FACUNIV.HTM

1999 Summer Faculty Program at NASA
Johnson Space Center
Houston, Texas

- Biomedical Hardware Development and Engineering
- Crew and Thermal Systems
- Guidance, Navigation, and Control Systems
- Manufacturing, Material and Process Technology
- Propulsion and Energy Systems
- Automation, Robotics, and Simulation
- Structures and Mechanics
- Avionic Systems for Manned Spaceflight

Features:

- 10-week, paid tenure at Johnson Space Center
- Opportunity to bring an accompanying student
- Faculty seminars and workshops on topics of interest
- Follow-on grants (competitive)
- Program runs from June 1st to August 6th (10 weeks)

Application Deadline: February 1, 1999

To apply, contact:

Dr. William Hyman
Biomedical Engineering Program
Texas A&M University
College Station, TX 77843-3120
Phone: (409) 845-5532
Fax: (409) 845-4450
E-Mail: w-hyman@tamu.edu

For more about the 1999 Summer Faculty Program at NASA, visit http://www.asce.org/fellowships/html/nasa.htm

Senior Scholar
"Preparation for the Professions" Program
Qualifications: The Carnegie Foundation for the Advancement of Teaching seeks an active and productive scholar from the field of education, psychology, history, sociology, or another relevant discipline who has conducted research on one or more professions, with particular emphasis on professional education. Candidates for this position must hold the Ph.D. and have an established scholarly track record.

Leading candidates will have the following qualifications:

- A record of achievement and interest in the study of higher education, including such issues as teaching and learning, instruction, curriculum, assessment and the institutional settings for teaching and learning.
- A strong commitment to the improvement of education
- Knowledge of the scholarly literature on the professions and professional education
- Research experience relating to one or more of the professions under study
- Interest in and experience with cross-disciplinary work

About "Preparation for the Professions"

"Preparation for the Professions" is an ambitious 5-10 year program to investigate the distinctive approaches to teaching and learning used in professional schools to ensure the development of professional understanding, skills, and integrity. The program will entail intensive studies of several professions including law, engineering and many others. This program of research focuses on processes of teaching and learning in education for the professions rather than more traditional studies in the sociology or economics of the professions at the social structural level.

The study of each profession will be conducted in collaboration with the relevant professional associations and will include an action phase as well as scholarly publications and policy analysis. The program will begin with a two-year study of the teaching of law commencing in July, 1999. The two-year study of Engineering will begin in July, 2000.

Application Procedure: Send a letter of interest, CV, copies of two relevant publications, contact information (names, phone numbers, fax numbers and email addresses) of three people who could provide references to:

Ms. Charlene Moran
The Carnegie Foundation for the Advancement of Teaching
555 Middlefield Road
Menlo Park, CA 94025
Phone: (650) 566-5100
Academic Opportunities

Assistant/Associate Professor Biological/Biomechanical
Department of Biological and Agricultural Engineering
Louisiana State University
Baton Rouge, Louisiana

Qualifications: Applicant must have an earned Ph.D in biological engineering, agricultural enigneering, mechanical engineering, biomechanics engineering, or related engineering discipline with emphasis, course work and/or experience in biomechanics or biological engineering applications.

Responsibilities: (approximately 66% Research in the Louisiana Agricultural Experiment Station and 34% Teaching in the LSU College of Agriculture). Seeking a faculty member to develop and lead a research and teaching program in Biological and Agricultural Engineering. Research projects will be in Biological and Biomechanical Engineering, to address the research needs of animal, aquaculture and biological and agricultural systems, such as systems for the production, culture, harvesting, grading, processing, and by-products utilization of Louisiana's economically important species. The faculty member should be innovative in research approaches and willing to participate in an interdisciplinary research environment to provide expertise in Biomechanical Engineering. Teaching duties will include core undergraduate courses in Biological Engineering, and undergraduate and/or graduate courses in Biomechanics and Biological Engineering. The faculty member will direct graduate students and provide expertise in this area of advanced study.

Application Deadline: February 1, 1999 or until a suitable applicant is found

Application Procedure: Submit letter of application, resume, transcript and a list of three references to:

Dr. Lalit R. Verma, Professor and Head
Biological and Agricultural Engineering Department
Louisiana State University
Baton Rouge, LA 70803-4505
Phone: (504) 388-3153
Tenure-Track Faculty
Division of Engineering and Applied Sciences
Harvard University
Cambridge, Massachusetts

Qualifications: A Ph.D is required. We seek a creative, forward-looking, individual with broad, interdisciplinary research interests spanning experimental, computational, and/or theoretical aspects of fluid dynamics.

Preferred Research Focus: Fluid transport processes, reactive flows, multiphase flows, materials processing, biomedical fluids, and complex fluids.

Application Deadline: February 15, 1999

Application Procedure: Applicants should submit a CV, a statement of research and teaching interests, and the names, addresses (including E-Mail), and telephone numbers of three references to:

Prof. Howard A. Stone
Fluid Dynamics Search Committee
Pierce Hall 308
Division of Engineering and Applied Sciences
Harvard University
Cambridge, MA 02138
Phone: (617) 495-3599/495-9759
Fax: (617) 495-9837 E-Mail: has@stokes.harvard.edu

For more about Harvard's Division of Engineering & Applied Sciences, visit http://www.deas.harvard.edu/administration/about-deas.html

Tenure-Track Faculty (2+)
Department of Chemical and Environmental Engineering
University of Arizona
Tucson, Arizona

Chemical Engineering
Qualifications: A Ph.D in Chemical Engineering or a closely-related field is required.
Preferred Research Focus: Resumes from outstanding candidates with research interests relevant to the Department's NSF/SRC sponsored Center for Environmentally Benign Semiconductor Manufacturing are particularly encouraged to apply.

**Environmental Engineering**
Qualifications: A Ph.D in Environmental Engineering, Chemical Engineering, or a closely-related field is required.

Preferred Research Focus: Candidates are encouraged to have interest in interdisciplinary research in the physiochemical or biochemical treatment of water, wastewater or hazardous waste.

Application Deadline: Review of Applicants will begin on 12/1/1998 and will continue until the position is filled.

Application Procedure: To apply, please submit a resume and 3-5 references to:

Faculty Search Committee  
Department of Chemical and Environmental Engineering  
The University of Arizona  
Tucson, AZ 85721  
Phone: (520) 621-6044  
Fax: (520) 621-6048  
E-Mail: wendt@engr.arizona.edu

For more about ChemE and Environmental Eng at U of Arizona, visit [http://www.che.arizona.edu/](http://www.che.arizona.edu/)

**Tenure-Track Faculty**
Department of Chemical Engineering  
University of Texas/Austin  
Austin, Texas

Qualifications: A Ph.D is required and applicants must have at least one degree in Chemical Engineering, an outstanding record of research accomplishments and a strong interest in undergraduate and graduate teaching.

Preferred Research/Teaching Focus: Preference will be given to applicants with skills that will add to the Department's strengths in bioengineering and applied computational mathematics, including fluid dynamics, systems engineering and statistical mechanics.

Responsibilities: The successful candidates are expected to teach undergraduate and graduate courses, develop a research program, collaborate with other faculty, and be involved in service to the University and the profession.
Application Procedure: Interested persons should submit a detailed CV including academic and professional experience, a list of peer reviewed publications, and other technical papers and the names, addresses and telephone numbers of three or more references to:

Prof. John Ekerdt, Chair
Department of Chemical Engineering
The University of Texas at Austin
Austin, TX 78712-1062
Phone: (512) 471-4689
Fax: (512) 471-7060 E-Mail: ekerdt@che.utexas.edu

For more about Chemical Engineering at UT Austin, visit http://www.che.utexas.edu/

Assistant Professor
Department of Chemical Engineering
Tufts University
Medford, Massachusetts

Qualifications: A Ph.D. or equivalent in Chemical Engineering or a related field is required.

Preferred Research/Teaching Focus: Expertise should be in a field of applied biology such as bioengineering, biomedical engineering, biochemical engineering or biotechnology; or in a core chemical engineering subject with application to such a field.

Application Deadline: Review of applications began on December 15, 1998, but will continue until the position is filled.

Application Procedure: Send CV, names/addresses of three references, and research plan to:

Faculty Search Committee
Chemical Engineering Department
Tufts University
4 Colby Street
Medford, MA 02155
Phone: (617) 627-3570
Fax: (617) 627-3991
E-Mail: JMeldon@Infonet.Tufts.Edu

For more about Chemical Engineering at Tufts, visit http://www.tufts.edu/as/che/

Tenure-Track Faculty (2+)

Department of Chemical Engineering
Texas A&M University

Qualifications: Applicants should have a Ph.D in Chemical Engineering and they should have the potential for and a commitment to excellence in undergraduate/graduate teaching and research.

Preferred Research/Teaching Focus: Process safety, simulation, control, and design, polymers/colloids, material science, catalysis and biotech/biomedical. Other research areas will be considered for truly exceptional individuals.

Application Deadline: The Department will review applications as received.

Application Procedure: Applicants should send a CV, names of three references, and a detailed statement of research and teaching interests to:

Professor Rayford G. Anthony, Head
Department of Chemical Engineering
Texas A & M University
College Station, TX 77843-3122
Phone: (409) 845-3370
E-Mail: rga5094@chennoul.tamu.edu

For more about ChemE at Texas A & M University, visit http://www-chen.tamu.edu/

Assistant Professor
Howard F. Isermann Department of Chemical Engineering
Rensselaer Polytechnic Institute
Troy, New York

For details on this position, please contact:

Prof. William N. Gill
Howard P. Isermann Department of Chemical Engineering
Rensselaer Polytechnic Institute
110 8th Street
Troy, NY 12180-3590
Phone: (518) 276-2880
Fax: (518) 276-4030
E-Mail: gillw@rpi.edu

For more about ChemE at Rensselaer, visit http://www.eng.rpi.edu/dept/chem-eng/
**Associate Professor**
Chemical Engineering Program  
Division of Engineering Sciences  
College of Engineering  
Florida Institute of Technology  
Melbourne, Florida

Qualifications: An earned doctorate in Chemical Engineering or a closely-related field is required.

Preferred Research/Teaching Focus: Preference will be given to applicants with an established funded research program in one or more of the following areas: Industrial waste treatment, air pollution, alternative fuels, energy conservation, vehicle propulsion. Applicants with outstanding records of research funding by national agencies will be given strong consideration in all research areas. A record of collaboration in interdisciplinary research and involvement in research projects with specific industrial/commercial applications is especially welcome.

Application Deadline: February 28, 1999

Application Procedure: Applicants should send a resume including references, and a brief statement of teaching and research objectives to:

Prof. Manolis M. Tomadakis  
Chemical Engineering Program  
Florida Institute of Technology  
150 West University Boulevard  
Melbourne, FL 32901-6975  
Phone: (407) 674-8068  
Fax: (407) 674-7565  
E-Mail: tomadakis@fit.edu

For more about ChemE at Florida Tech, visit [http://www.fit.edu/AcadRes/engsci/chemical/chemical.html](http://www.fit.edu/AcadRes/engsci/chemical/chemical.html)

**Assistant/Associate Professor**
Fluid, Thermal, and Chemical Processes Group  
Division of Engineering  
Brown University  
Providence, Rhode Island

Qualifications: Applications are sought from individuals with a Ph.D or equivalent degree and research experience in a relevant area. Candidates for associate rank should have substantial research experience
beyond their doctoral dissertations. Applicants should have the ability to make clear and effective presentations of technical and scientific materials.

Responsibilities: The appointee will be expected to make a strong contribution to programs in mechanical and/or civil engineering, and to develop a significant independent research program building on one or more of the existing strengths in the Division. The appointee will be expected to teach undergraduate and graduate courses in thermal and fluid science and in the engineering core curriculum.

Preferred Research/Teaching Focus: Areas of particular interest include fluid mechanics, combustion, energy and environmental technology, materials processing, and biomedical applications.

Application Deadline: For full consideration, applications should be received by January 15, 1999.

Application Procedure: Interested parties should send a detailed resume, plus the names and full mailing addresses of at least three persons (five for associate level) who could supply letters of reference, if requested, to:

Professor Robert H. Hurt, Chair
FTCP Search Committee
Division of Engineering, Box D
Brown University
182 Hope Street
Providence, RI 02912-9104
Phone: (401) 863-2685
Fax: (401) 863-1157
E-Mail: Robert_Hurt@brown.edu

For more about Brown's Fluid, Thermal & Chemical Processes Group, visit http://www.engin.brown.edu/faculty/Fluid/

Assistant/Associate Professor
Department of Chemical Engineering
Auburn University
Auburn University, Alabama

Qualifications: Department seeks outstanding candidates who have a Ph.D in Chemical Engineering. The successful candidate will demonstrate a strong commitment to both excellent research and excellent teaching.

Preferred Research/Teaching Focus: Open to outstanding individuals in any research area with special interest in process control, process systems, materials, bio, etc.
Application Deadline: Review of applications will continue until a candidate is selected and recommended for appointment.

Application Procedure: Candidates should send a resume, a description of future research plans, previous research accomplishments teaching interests, and names of three references to:

Dr. Robert P. Chambers, Head
Department of Chemical Engineering
230 Ross Hall
Auburn University, AL 36849-5127
Phone: (334) 844-4827
Fax: (334) 844-2063
E-Mail: chambers@eng.auburn.edu

For more about Chemical Engineering at Auburn, visit http://www.eng.auburn.edu/department/che/

Assiistant Professor
Department of Chemical and Metallurgical Engineering
University of Nevada/Reno
Reno, Nevada

Qualifications: Applicants must have received both doctoral and undergraduate degrees in chemical engineering by July 1, 1999, and have demonstrated abilities in teaching, research, and service to the profession. Industrial experience is a plus. Strong written and oral communication skills are required. The successful candidate must demonstrate flexibility in undergraduate and graduate teaching, the ability and commitment to enhance student learning, and the ability to develop a national reputation, secure external funding, and develop industrial contacts.

Responsibilities: Teach undergraduate and graduate courses in chemical engineering, advise students, develop a national reputation in scholarly work, secure external funding and provide service to the university and the profession.

Preferred Research/Teaching Focus: The field of specialization within chemical engineering is open; however, an ability to teach a broad range of graduate and undergraduate courses is essential.

Application Deadline: Closing date for receipt of all application materials is February 1, 1999.

Application Procedure: Send detailed descriptions of teaching and research capabilities and plans, CV, and names and addresses of three references to:

Dr. A. Fuchs, Chair
Assistant Professor  
Chemical Engineering Department  
Virginia Polytechnic Institute & State University  
Blacksburg, Virginia  

Qualifications: Professional qualifications, education and experience should be consistent with the requirements for appointment to the rank of assistant professor.

Preferred Research/Teaching Focus: Candidates for Assistant Professor should have interest in university teaching and research in the area of biochemical engineering. The successful is expected to develop a funded research program.

Application Deadline: Review of applications will continue until the position is filled.

Application Procedure: Applications should include a current resume along with the names, affiliations, and telephone numbers of at least three references. Send applications and nominations to:

William H. Velander, Chair  
Search Committee  
Department of Chemical Engineering  
132 Randolph Hall  
Virginia Tech  
Blacksburg, VA 24061-0211  
Phone: (540) 231-7869  
E-Mail: wvelande@vt.edu

For more about Chemical Engineering at Virginia Tech, visit [http://www.vt.edu/vt98/academics/CollegesDepts.html](http://www.vt.edu/vt98/academics/CollegesDepts.html)

Tenure-Track Faculty  
Department of Chemical and Biochemical Engineering  
University of Maryland/Baltimore County
Baltimore, Maryland

Qualifications: Applicants must have a Ph.D in Chemical Engineering or in a closely-related discipline. Seeking outstanding candidates who have a commitment to excellence in teaching and who will develop and lead a research program with successful external funding.

Preferred Research/Teaching Focus: The Department's current research focus is in the area of biochemical and biomedical engineering, but all areas of research will be considered.

Extra Stuff: The Department is housed in a new $26M dollar building and possesses state-of-the-art facilities.

Application Deadline: Screening of candidates will start in February 1999 and will continue until position is filled.

Application Procedure: Interested candidates should send a resume, statement of teaching and research interests, and the names of three references to:

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

For more about ChemE and BiochemicalE at UMBC, visit http://www.umbc.edu/cbe

Assistant Professor
Division of Microbial Biochemistry and Biotechnology
Department of Biochemistry, Molecular Biology and Biophysics (BMBB) University of Minnesota
St. Paul, Minnesota

For details on this position, please contact:

Prof. Larry Wackett, Head
Division of Microbial Biochemistry and Biotechnology

Application Procedures: http://biosci.cbs.umn.edu/BMBB/

Send material specified at the above URL to:
Mr. Jeff Schaub
Department of Biochemistry, Molecular Biology and Biophysics
University of Minnesota
435 Delaware St. SE
Minneapolis, MN 55455-0392, USA
Phone: (612) 624-7463
E-Mail: schaub@biosci.cbs.umn.edu

General info about BMBB at UMN may also be found at http://biosci.cbs.umn.edu/BMBB/

Assistant Professor Organic/Polymer Chemistry
Chemistry Department
Clarkson University
Potsdam, New York

Qualifications: A Ph.D with research complementing departmental programs and those at the Center for Advanced Materials Processing is required; post doctoral experience is preferred. Applicants with especially-prominent resumes can apply to the Distinguished University Scholar Program where they will receive a 3-year appointment and salary increase of up to 25%.

Preferred Research Focus: Organic/Polymer Chemistry

Application Deadline: Review begins January 15, 1999 and will continue until the position is filled.

Application Procedure: Initial application via E-Mail is strongly encouraged. Please submit vitae, research plans, teaching philosophy and 3 letters of recommendation to:

Professor Yuzhuo Li
Search Committee Chair
Department of Chemistry
Clarkson University
Potsdam, NY 13699-5810
Phone: (315) 268-2389
Fax: (315) 268-6610
E-Mail: yuzhuoli@clarkson.edu

For more about Chemistry at Clarkson University, visit http://www.clarkson.edu/chemistry/newfaculty.html

Assistant/Associate Professor
Department of Chemical Engineering
University of Massachusetts/Amherst
Amherst, Massachusetts

Qualifications: Ph.D in Chemical Engineering or equivalent qualifications and commitment to excellence in teaching and research are required.

Responsibilities: Duties in undergraduate and graduate teaching; establishment of a research program with supervision of graduate students, fund raising, and publication of original results at meetings and in refereed journals.

Preferred Research/Teaching Focus: Research area is open.

Application Deadline: Completed applications should have been received by December 1, 1998; applications accepted thereafter until the position is filled.

Application Procedure: Please send a resume, statement of teaching interests, research plan and arrange for three letters of reference directly to:

Prof. Michael Tsapatsis, Chair
Faculty Search Committee
Department of Chemical Engineering
University of Massachusetts/Amherst
Amherst, MA 01003-3110
Phone: (413) 545-0276
Fax: (413) 545-1647
E-Mail: tsapatsi@ecs.umass.edu

For more about Chemical Engineering at UMass Amherst, visit http://www.ecs.umass.edu/che/

Dean, College of Engineering
University of Idaho
Moscow, Idaho

Qualifications: Professional accomplishments to qualify for a tenured full professorship in one of the College's disciplines, including a distinguished record of scholarly achievement. Proven excellent leadership and administrative capabilities and skills demonstrated by success in significant administrative positions at a research/teaching university or in an equivalent executive position. Vision, capability and experience to address the changes and challenges facing engineering education. Demonstrated ability in the following areas:

- Effective interpersonal and communication skills
- Commitment to the land-grant philosophy and to excellence in teaching, research, outreach, and
service by faculty

- Commitment to affirmative action and diversity, and a high level of professional credibility and personal integrity
- Strategic and short-term planning, program development personnel, advancement, team building, budget development and working with professions related to the college

Responsibilities: The Dean is the chief administrator of the college and reports to the Provost of the University. Working with the faculty, the Dean is responsible for policy development, implementation and evaluation. The Dean is responsible for:

- Fostering academic excellence in the College and each of its units
- Developing policies and recommendations concerning appointments promotion, tenure, salaries and termination of college personnel in consultation with unit administrators
- Planning, assessing and providing leadership for the teaching research and outreach activities of the college at the state, regional, national and international levels.
- Revising and implementing the College strategic plan
- Cooperating with stakeholder groups to promote program funding and development
- Working cooperatively with university groups on issues of policy development and implementation that require university-wide attention, including interdisciplinary and outreach programs
- Providing leadership in the development of statewide engineering education plans and programs in cooperation with other regional universities
- Communicating with College faculty and staff concerning policy and other personnel concerns
- Assuring appropriate use, maintenance, and security of property entrusted to the College
- Allocating facility resources assigned to the College

Application Deadline: Search and selection procedures will be closed when a sufficient number of qualified applicants are identified, but not earlier than January 29, 1999.

Application Procedure: Send nominations and applications, including a letter of application, CV, and the names, addresses, phone numbers and E-Mail addresses of five references to:

Dean Byron Dangerfield, Chair
Dean of Engineering Search Committee
College of Business and Economics
University of Idaho
Moscow, ID 83844-3161
Phone: (208) 885-6478
Fax: (208) 885-8939
E-Mail: edsearch@uidaho.edu
Assistant Professor
Chemical Engineering and Materials Science Department
University of Minnesota
Minneapolis, Minnesota

Qualifications: A successful candidate will have a Ph.D in engineering, physical science or applied mathematics. Exceptional individuals with training or accomplished research in biochemical engineering as well as those from non-traditional areas of research are encouraged to apply.

Preferred Research/Teaching Focus: Chemical Engineering of biochemical systems.

Application Deadline: The search committee will accept nominations and applications until the position is filled.

Application Procedure: Applications should include CV and the names of three or more references. Please send nominations or applications to:

Dr. Wei-Shou Hu, Professor
Chemical Engineering and Materials Science
University of Minnesota
421 Washington Avenue, SE
Minneapolis, MN 55455-0132
Phone: (612) 625-0546
Fax: (612) 625-7246
E-Mail: acre@cems.umn.edu

For more about ChemE and MSE at UMinnesota, visit http://www.cems.umn.edu/

Senior/Junior Faculty (2)
Biomedical Engineering
College of Engineering
University of California, Davis
Davis, California

Qualifications

- Senior Candidates should have an outstanding international research reputation in biomedical engineering and a track record of interdisciplinary collaboration.
- Junior Candidates should have outstanding research potential
All candidates are required to have a Ph.D in biomedical engineering or a related discipline.

All candidates must be able to teach core undergraduate and graduate courses, and be willing to help establish an innovative multidisciplinary curriculum in the field of biomedical engineering.

Preferred Research/Teaching Focus: Particular areas of research include biological and medical imaging, cellular adhesion, and cell mechanics.

Application Deadline: To ensure consideration, applications should be submitted by January 29, 1999. The positions will remain open until filled.

Application Procedure: Interested individuals should forward their resume, a summary of teaching and research plans, and the names of at least three professional references to:

Prof. Katherine W. Ferrara
College of Engineering - Dean's Office
University of California
One Shields Avenue
Davis, CA 95616-5294
Phone: (530) 752-8058

For more about Engineering at UC Davis, visit http://www.engr.ucdavis.edu

Assistant Professor (1)
Associate Professor (1)
Department of Chemical Engineering
Tennessee Technological University
Cookeville, Tennessee

Qualifications: An earned Ph.D or equivalent in Chemical Engineering is required. An earned bachelor's degree in Chemical Engineering from an ABET-accredited university is preferred. Applicants who have passed the Fundamentals of Engineering exam and are eligible to become registered within a reasonable length of time are preferred. Strong communication skills are required. The ability to develop and maintain an effective working relationship with students, faculty, staff administrators and the internal and external constituencies of the Department is required. Evidence of potential excellence in teaching and scholarly activities is required. For Associate Professor applicants, demonstrated excellence in teaching and scholarly activities with at least five years of post-doctoral professional experience is required.

Responsibilities: Applicants must be able to teach graduate and undergraduate courses in Chemical Engineering; to engage in research activities; and to utilize engineering computer applications. Other duties may include advising students, serving on departmental and university committees and participating in public service activities.
Application Deadline: Initial screening of applications will begin March 15, 1999, but the applicant pool will remain open until the positions are filled.

Application Procedure: TTU will hire only US Citizens and aliens lawfully authorized to work in the US. All new employees will be required to complete an employer's verification form (I-9) no later than three days from date of hire. To apply: Send letter of application, completed TTU application form, current resume, and list of references to:

Prof. Clayton P. Kerr, Chair
Faculty Search Committee
Department of Chemical Engineering
Tennessee Technological University
P.O. Box 5013
Cookeville, TN 38505
Phone: (931) 372-3297
Fax: (931) 372-6352 E-Mail: CKerr@tntech.edu

For more about ChemE at Tennessee Technological University... http://www.tntech.edu/www/acad/che/

**Publication Schedule**

Beginning with the March issue, the *Course X News* will be transmitted on the first Monday of every month. Your news items, faculty and student distinctions, as well as announcements, job postings and other information for the department are invited for the upcoming March issue! Faculty, Staff, Students, Alumni/ae --- what's the latest exciting development in your lab? Perhaps you recently returned from a fascinating trip, professional conference, or participated in an honorary lecture series, or received a notable award. Don't be shy -- the Course X community wants to hear the latest about you!

Here are the dates for the remaining issues for 1999:

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<thead>
<tr>
<th>Issue Date</th>
<th>Submission Deadline</th>
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<tr>
<td>Monday, March 1st</td>
<td>Wednesday, February 24th</td>
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<td>Monday, April 5th</td>
<td>Wednesday, March 31st</td>
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<td>Monday, May 3rd</td>
<td>Wednesday, April 28th</td>
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</table>
The June issue will be transmitted on June 1st to facilitate the inclusion of Commencement Day (Friday, June 6th).

Thanks To...

Professor Bob Armstrong, Elaine Aufiero, Arline Benford, Janet Fischer, the MIT Alumni/ae Association's Heidi Ganss, Gerti Gillen, Professor Harvey P. Greenspan of the Math Department, Patsy Sampson, Emmi Snyder, and Professor Jackie Ying for their contributions to this edition of the Course X News!

Submissions for the Course X News should be sent to:
Gregory Sands
Assistant for Publications, Payroll & Fellowships
MIT Administrative Services, 8-328
77 Massachusetts Ave.
Cambridge, MA 02139
E-Mail: gsands@mit.edu
Phone: (617) 253-0949
Fax: (617) 253-9894