By Lynn Davis

The next time you take medicine, are hooked up to a hospital I.V., get an organ transplant, or have a hip replaced, you can thank the horseshoe crab. A component of the blood of the horseshoe crab has verified that those items are free of dangerous toxins. Nothing else known to man can do that job as effectively.

And the College of Natural Resources is playing a part in conserving this valuable resource, as fisheries and wildlife Professor Jim Berkson engages in an on-going study of horseshoe-crab populations. In one round of studies, his graduate student Beth Walls spent the summer at Chincoteague on the Maryland/Virginia line monitoring the horseshoe-crab population along its coast and tagging the crabs which will provide future information on the crab’s movement and survival. The Virginia Sea Grant College Program funds another research project Berkson has with Steve Smith of the Virginia-Maryland College of Veterinary Medicine. They are studying the blood biochemistry of the species.

On February 15 Berkson was featured on the AgDay television program aired on more than 150 TV stations discussing his horseshoe-crab research and the crab’s life cycle.

Berkson hopes his work ultimately will lead to better management practices and resolve some of the conflicts other users and interests have with the commercial fishermen. Researchers in other fields are studying the crab, but few or no other fishery scientists on the East Coast except Berkson are doing research from the fisheries management perspective. He puts this background to good use as a member of the Horseshoe Crab Stock Assessment Committee of the Atlantic States Marine Fisheries Commission (ASMFC).

The Virginia Tech-Sea Grant researcher has also served on ASMFC’s Horseshoe Crab Peer Review Panel. ASMFC, responsible for coordinating fisheries management for multi-state and federal resources, last week issued regulations that each Mid-Atlantic state reduce its commercial horseshoe-crab catch by 25 percent. This move impacts commercial fishermen and one of the early researchers in the field at Virginia Tech for the university’s important minority Ph.D. degrees to a relatively high number of minorities, Peters said, “The culture at Virginia Tech is that recruitment, retention, mentoring, and the students’ success are shared responsibilities. Not only does the Graduate School work with the colleges to considerable time and effort on the recruitment of minority graduate students, for instance.

QEM President Shirley McBay said that the network is focusing on the doctoral level because “it is important to more fully understand the reasons minority members receive so few Ph.D. degrees as account for 50 percent of the MPSE doctoral degrees received by minority members between 1990 and 1997, although they represent less than 10 percent of the nation’s universities offer such degrees to a relatively high number of minorities, Peters said, “The culture at Virginia Tech is that recruitment, retention, mentoring, and the students’ success are shared responsibilities. Not only does the Graduate School work with the colleges to considerable time and effort on the recruitment of minority graduate students, for instance.

QEM President Shirley McBay said that the network is focusing on the doctoral level because “it is important to more fully understand the reasons minority members receive so few Ph.D. degrees as account for 50 percent of the MPSE doctoral degrees received by minority members between 1990 and 1997, although they represent less than 10 percent of the nation’s universities offer such degrees to a relatively high number of minorities, Peters said, “The culture at Virginia Tech is that recruitment, retention, mentoring, and the students’ success are shared responsibilities. Not only does the Graduate School work with the colleges to considerable time and effort on the recruitment of minority graduate students, for instance.

QEM President Shirley McBay said that the network is focusing on the doctoral level because “it is important to more fully understand the reasons minority members receive so few Ph.D. degrees as account for 50 percent of the MPSE doctoral degrees received by minority members between 1990 and 1997, although they represent less than 10 percent of the nation’s universities offer such degrees to a relatively high number of minorities, Peters said, “The culture at Virginia Tech is that recruitment, retention, mentoring, and the students’ success are shared responsibilities. Not only does the Graduate School work with the colleges to considerable time and effort on the recruitment of minority graduate students, for instance.

QEM President Shirley McBay said that the network is focusing on the doctoral level because “it is important to more fully understand the reasons minority members receive so few Ph.D. degrees as account for 50 percent of the MPSE doctoral degrees received by minority members between 1990 and 1997, although they represent less than 10 percent of the nation’s universities offer such degrees to a relatively high number of minorities, Peters said, “The culture at Virginia Tech is that recruitment, retention, mentoring, and the students’ success are shared responsibilities. Not only does the Graduate School work with the colleges to considerable time and effort on the recruitment of minority graduate students, for instance.

QEM President Shirley McBay said that the network is focusing on the doctoral level because “it is important to more fully understand the reasons minority members receive so few Ph.D. degrees as account for 50 percent of the MPSE doctoral degrees received by minority members between 1990 and 1997, although they represent less than 10 percent of the nation’s universities offer such degrees to a relatively high number of minorities, Peters said, “The culture at Virginia Tech is that recruitment, retention, mentoring, and the students’ success are shared responsibilities. Not only does the Graduate School work with the colleges to considerable time and effort on the recruitment of minority graduate students, for instance.
EVENTS

Friday, 18
Black History Month Program, 11:30 a.m.-1:30 p.m., Women’s Center: Irene Lamb.
Student Recital, 8 p.m., Squires Recital Salon: Jocelyn Oldham.

Saturday, 19
Men’s Basketball, 2 p.m., Cassell Coliseum: Xavier.
University Chamber Music, 8 p.m., Blacksburg Presbyterian Church: Brass Affair.

Sunday, 20
YMCA Hike, 1:30 p.m., 403 Washington St.: Falls Ridge in Winter.
Women’s Basketball, 2 p.m.: At Duquesne.
University Chamber Music, 3 p.m., Blacksburg Presbyterian Church: Brass Affair.
Student Recital, 8 p.m., Squires Recital Salon: Cyndi Cox.

Monday, 21
University Council, 3-5 p.m., 1045 Pamplin.
Black History Month Program, 7-9:30 p.m., Black Cultural Center.

Tuesday, 22
Family Support Program, noon-1 p.m., DBHCC room.
G. Linda Spevay, Montgomery-Floyd Regional Library.
Black History Month Keynote Speaker, 6:30 p.m., DBHCC auditorium: James Loewen.
Black History Month Program, 7 p.m., Black Cultural Center.

Wednesday, 23
CEUT Workshop, 3:30 p.m., Hillcrest: “Research-Based Strategies.”

“With Good Reason.” 7 p.m., WYFF: “Art Marries Technology.”
Black History Program, 7:30 p.m., DBHCC auditorium: Kip Fulbeck.

Thursday, 24
YMCA Slide Show, noon, Cranwell Center: Ed Bunce.
CEUT Workshop, noon-1:30 p.m., Hillcrest: “Large Classes: Solutions.”
Black History Month Program, 7-11 p.m., Black Cultural Center: “Black Love.”
Women’s Basketball, 7 p.m., Cassell Coliseum: LaSalle.
Theatre Event, 8 p.m., Squires Studio Theatre: Rhinoceros.

Friday, 25
Women’s Month Program, noon-1:30 p.m., Hillcrest dining room: Muriel Lederman, Bernice Hausman, Rebecca Scheckeler, Leslie Graham.
Black History Month Program, 7-9:30 p.m., Squires Colonial Hall: Angela Davis.
Student Recital, 8 p.m., Squires Recital Salon: Jackie Wells.
Theatre Event, 8 p.m., Squires Studio Theatre: Rhinoceros.

SEMINARS

Friday, 18
Highlands in Chemistry, 11 a.m., 3 Davidson: Dorothea J. Jeffrey, DuPont.
MCBB, noon, 102 Fralin: Liangbiao Zheng, Yale.
College of Natural Resources, 3 p.m., Fralin auditorium: Jim Bowyer, Minnesota.
Communication Studies, 3:30-4:30 p.m., Hillcrest conference room: Stephen Prince.
Botany, 4 p.m., 1076 Derring: Mary Ann Hanson.

Monday, 21
Economics, 3:30 p.m., 3008 Pamplin: Shawn Kantor, Arizona.
Horticulture, 4 p.m., 101 Saunders: Kara Lewallen.

Thursday, 24
Geological Sciences, 4 p.m., 4069 Derring, Phil Bennett, Texas.
Industrial/Systems Engineering, 4 p.m., 349 Whittemore: J.T. Black.

Plant Physiology, 4 p.m., 102 Saunders: John Jalesko.

Friday, 25
Highlands in Chemistry, 11 a.m., 3 Davidson: George Stanley, LSU.
MCBB, noon, 102 Fralin: Ross Whetten, N.C. State.
Communication Studies, 3:30-4:30 p.m., Hillcrest conference room: Matt McAllister.
Botany, 4 p.m., 1076 Derring: Leonard Pysh, Roanoke.
STS, 4 p.m., 132 Lane: Rose-Marie Sargent, Merrimack.

ACTIVITIES

Nobel laureate to present lecture
Nobel physicist Leon Lederman will discuss “This Year’s New Thing in High School Science Education” at Virginia Tech Thursday, March 2 at 7 p.m. in the Donaldson Brown Auditorium. The talk is open to the public at no charge.

Lederman, who was part of a group that won the Nobel Prize in 1988 for work done in the 1970s that helped define the Standard Model of matter, will be the first speaker in the Torgersen Lecture Series, named for former Virginia Tech President Paul E. Torgersen. Lederman’s talk will be about middle- and high-school science education.

ICCL fellows offered
The Institute for Distance and Distributed Learning (IDDL) is offering fellowships to faculty members for the development of on-line courses.
The IDDL Fellowship program is designed to recognize enthusiasm, enterprise and effectiveness of faculty members currently involved in the development of distance and distributed-learning instruction. The program provides a $5,000 stipend for a faculty member to complete the development of a totally on-line course. Being an IDDL fellow is seen as an honor and the fellow will serve as a spokesperson and resource for distance and distributed learning in their department or college and are eligible to serve as an exemplary instructor of the university’s Faculty Development Institute.
For complete information on faculty expectations, selection process and contact information, see http://www.iddl.vt.edu/ facinfo/funding.html.
March 10 is the deadline for submission. Award notification will be March 24.

Staff Scholarships offered
Two merit-based scholarships, the Lt. Col. William A. Trice Scholarship Funds, in the amount of $650 each are awarded to a Tech classified employee pursuing a degree in business part-time. Applicant must be a Virginia resident for at least 18 years with preference to students from Craig, Floyd, Goodnight or Nelson counties. Interested applicants may apply by sending a resume and letter of application to the Pamplin Awards Committee, c/o Dean Spencer, 1046 Pamplin, no later than noon, Monday, Feb. 28. The letter must address
how the applicant fits the criteria. A separate letter and resume must be submitted for each scholarship.

Museum plans Science Saturday
The Virginia Tech Museum of Natural History will hold Saturday Science on February 26 from 11 a.m. to noon. The event is open to children in grades kindergarten through three.
The program will explain how animals survive and adapt in their habitats. Also, children will learn how to classify the members of the animal kingdom using fun-filled games, stories, and crafts. For more information or to pre-register, please call 1-3001.

Fulbright officer to visit campus
Andy Riess, senior program officer for the Fulbright officer, will outline the process for getting a Fulbright in DBHCC conference room F on Monday, Feb. 28, at 3:30 p.m. Anyone considering applying for this award will have the chance to learn how to be competitive. For more information or to reserve a spot at the February 28 session, contact David Britt, dbritt@vt.edu or at 1-5888.

BioFair2000 announced
BioFair2000 is a biotechnology and computer-science career fair sponsored by the Fralin Biotechnology Center, the College of Arts and Sciences and the Division of Continuing Education at Virginia Tech. The fair will be held from 10 a.m.-4 p.m. on February 29, in Squires Old Dominion Ballroom. The fair is open to all undergraduate and graduate students.

Have lunch with Kip Fulbeck
On Wednesday, Feb. 23, from 11:30 a.m.-1 p.m., the Center for Excellence in Undergraduate teaching will host a brown-bag lunch with faculty members and graduate students. The CEUT will provide cookies and drinks for the event. This will be an informal discussion of multicultural teaching strategies and diversity in the classroom. Kip Fulbeck is an associate professor of art studio and Asian American studies at the University of California, Santa Barbara. He will be visiting campus to present “I Hope you Don’t Mind Me Asking...Debunking Multiracial Stereotypes” at 7:30 p.m. the same day in the DBHCC auditorium.

BULLETINS

CEUT offers workshops
The “Active Learning Strategies” workshop provides ways to keep students more actively engaged during class.

“Lectures: Research-Based Strategies That Work” is in Hillcrest Wednesday, Feb. 23, from 3:30-5 p.m. Hable will present in this session strategies and activities for immediate application in large or small classes.

The workshop “Large Classes: Solutions” is scheduled for Thursday, Feb. 24, 2-4:30 p.m., in Hillcrest Teaching assignments that include sections of 100 or more students present a challenge to many faculty members.

Participants will ask questions and take part in a discussion with other faculty members.

Women’s Center Awards nominations sought
The Women’s Center announces a call for nominations for its annual awards. Four leaders will be recognized for leadership in supporting the center’s mission: To promote a Virginia Tech community that is safe, equitable and supportive for women and that celebrates their experiences, achievements and diversity.

Awards will be given to one woman in each category for her demonstrated leadership as an activist for women’s concerns and contributions to the Women’s Center mission and to the continued development of Virginia Tech’s women’s communities.

Awards will be given to faculty woman of the year, staff woman of the year, community woman of the year and student activist of the year.

The award recipients will be determined by a committee with representatives from the Women’s Center, Virginia Tech Staff, and last year’s award recipients. Nominations should include a one-page letter explaining how the nominee exemplifies the criteria for the award and any additional support materials you wish to provide. Staff members of the Women’s Center are ineligible for the award. Self-nominations are accepted. Please submit nominations to Penny Burge (The Women’s Center at Virginia Tech, Price House, Blacksburg, VA 24061-0270) by March.
EMPLOYMENT

Classified Positions

The following classified positions are currently available. More details of these positions, specific application procedures and position-closing dates may be found on the Personnel Services web site at http://www.ps.vt.edu. Available positions are also listed on the Job Line, a 24-hour recorded message service. For information on all job listings, call 1-5300. Some of the following positions include state benefits. Positions with numbers beginning with a “W” are hourly and do not include state benefits. Individuals with disabilities desiring assistance or accommodation in the application process should call by the application deadline.

Full Time

Animal Care Technician B, 2647M, Grade 5, Veterinary Teaching Hospital.
Animal Care Technician C, 2639M, Grade 7, Veterinary Teaching Hospital.

Applications Analyst, 7354D, Grade 0, Computing Center.
Bannier Finance Trainer, 2802D, Grade 8, AIS Application Support.
Budget Analyst, 6935T, Grade 10, Budget/Financial Planning.
Budget Manager, 7567T, Grade 14, Budget/Financial Planning.
Carpenter, 7563G, Grade 7, Physical Plant.

Development Associate for Student Calling Program, 1450C, Grade 8, University Development/Annual Giving for Phonathon.

Development Program Researcher, 7556D, Grade 9, University Development.
Electrician, 7565G, Grade 7, Physical Plant.

Food Operations Manager B/Executive Chef, 1781H, Grade 10, Residential/Dining Programs/Dietrick Dining Hall.

Food Operations Manager B/Executive Chef, 0837H, Grade 10, Residential/Dining Programs/West End Market.

Grounds Worker Senior, 7564C, Grade 3, Physical Plant/Grounds/Landscape Services.

Housekeeping Supervisor, 7571G, Grade 4, Physical Plant.

Housekeeping Worker, 7261G, Grade 1, Recreational Sports.

Housekeeping Worker, 0171H, Grade 1, Residential/Dining Programs.

Housekeeping Worker, 7572C, Grade 1, Physical Plant.

Installation/Repair Technician, LC073G, Grade 8, Hokie Passport.

Institutional Traffic/Parking Supervisor, 1111T, Grade 9, Parking Services.

Office Services Specialist, 2084M, Grade C, CVU.

Office Services Specialist, 0242H, Grade 5, Residential/Dining Programs/Culinary Services Administration.

Office Services Specialist, Motor Pool Dispatcher, 7560T, Grade 5, Motor Pool.

Operating Systems Analyst, 1244D, Grade 0, AIS.

Plumber/Steamfitter, 7278H, Grade 7, Residential/Dining Programs/Facilities.

Program Support Technician, 6137T, Grade 6, CAS.

Public Relations Assistant Specialist, 4492J, Grade 8, Center for Transportation Research.

Public Relations Specialist, 7549J, Grade 10, Center for Transportation Research.

Recruiter, 7570D, Grade 10, Personnel Services.

Security Guard (Parking Enforcement Off.), W020415T, Grade 2, Parking Services.

Senior Development Associate of Annual Giving, 6695D, Grade 10, University Development.

Sheet Metal Worker, 7562C, Grade 7, Physical Plant.

Student Programs Coordinator, LC063D, Grade 12, Alumni Relations.

Part Time

Animal Care Technician A, W022970M, Grade 3, Veterinary Teaching Hospital.

Executive Secretary, W022984T, Grade 6, University Leadership Development.

Fiscal Assistant, W022977M, Grade 5, Biochemistry.

Housekeeping Worker, W022490H, Grade 1, Residential/Dining Programs.

Office Services Assistant, 1075T, Grade 4, Center for Interdisciplinary Studies.

Office Services Specialist, W022980, Grade 5, University Registrar.

Public Relations Assistant Specialist, W022976H, Grade 8, Residential/Dining Programs/Marketing/Conference Services.

Radiologic Technologist, W022239G, Grade 7, Health Center.

Trades/Utilities Worker (Trades Helper), W022969H, Grade 3, Residential/Dining Programs/Facilities.

University Only

Business Manager B, 7575G, Grade 12, Hokie Passport.

Program Support Technician Senior, 7544G, Grade 7, Physical Plant/Utilities.

Off Campus

Evening Announcer, 1962D, Grade 8, WVT.

Program Support Technician, 5435M, Grade 6, Virginia Cooperative Extension—Newport News Co.

Program Support Technician, 7543J, Grade 6, NVC—Computer Science.

Faculty Positions

INSTRUCTIONAL

Department of Aerospace and Ocean Engineering, Assistant Associate Professor. Contact: Bernard Grossman, 215 Randolph (0203), Review begins May 1.

NON-INSTRUCTIONAL

University Unions and Student Activities. Student Activities Program Coordinator. Contact: Alan Glick, 325 Squires (0138), Review begins March 27.

Mobile and Portable Radio Research Group. Research Associate Professor/Research Assistant Professor/Research Associate. Contact: Jeffrey Reed, 432 NEB (0350), Review begins immediately.

Residential and Dining Programs. Residence Director. Contact: Gail Kirby, 158 Eggleston (0428), Review begins March 13.

Virginia Cooperative Extension. Agriculture and Natural Resources Extension Agent. #FA676, Commercial Horticulture, Southampton. Contact: Steve Umberger, 125 Hutcheson (0437), Review begins March 13.

Benefits Information

General Assembly Approves Cash-Match Program

By Doug Martin, human resources manager

The 1999 General Assembly has approved a cash-match program for all salaried employees who participate in the 403(b) Tax Shelter Program or the 403(b) Tax Shelter Program. The initial employer support will be $10 per payday and will begin with the April 14, 2000 pay date. The General Assembly initially approved the cash match for the state Deferred Compensation Program (457 Plan); however, we were successful in getting the legislation amended to include the 403(b) tax-shelter program that is used by many of our faculty and staff members.

To be eligible to receive this employer matching contribution, each employee must meet the following criteria: Be a salaried Virginia Tech employee for the last 12 consecutive months; have an active 403(b) tax-shelter account through the university or an active 457 Deferred Compensation Account through the university; contribute at least $20 per payday to the 403(b) or 457 program; and choose a company to receive the employer $10 match per pay period.

To participate in the Cash-Match program, each eligible participant in the 403(b) program will receive information in a separate mailing that will indicate company choices and investment options for the $10 per pay day 401(a) Cash Match.

Once the accounts are established, the $10 per payday will be forwarded to the named company to receive the employer $10 match per pay period.

Intensive parking patrol formed

Pricing Services has implemented a new enforcement program, the Intensive Parking Enforcement Patrol (IPEP), in response to preparation complaints of increased illegally parked cars on campus.

This program will target problem areas by sending special enforcement patrol to these locations. The IPEP patrol will consist of two or three officers who will intensely monitor a specific section of campus for the remainder of the day.

By Larry Bechtel, Virginia Tech Recycling

Please take note of the following reminders about recycling certain paper items, based upon phone calls and e-mails to the VTR office.

The following items should be recycled as sorted office paper: Spectrum, Manila file folders, envelopes with windows, and business cards.

The following items are not recyclable: green hanging file folders, neon-orange, red, or green colored paper; brown mailing envelopes, and phone books.

To be eligible to receive this employer matching contribution, each employee must meet the following criteria: Be a salaried Virginia Tech employee for the last 12 consecutive months; have an active 403(b) tax-shelter account through the university or an active 457 Deferred Compensation Account through the university; contribute at least $20 per payday to the 403(b) or 457 program; and choose a company to receive the employer $10 match per pay period.

Pricing Services has implemented a new enforcement program, the Intensive Parking Enforcement Patrol (IPEP), in response to complaints of increased illegally parked cars on campus.

This program will target problem areas by sending a special enforcement patrol to these locations. The IPEP patrol will consist of two or three officers who will intensely monitor a specific section of campus for the remainder of the day.

The initial IPEP focus areas are Turner Street (the access road to Burruss loading dock), Derring lot (the large F/S lot off Perry Street), Solitude lot, Owens lot, Engel lot, NEB lot, and the Drillfield. With the implementation of IPEP, Pricing Services hopes to decrease the number of illegally parked vehicles on campus.

To be eligible to receive this employer matching contribution, each employee must meet the following criteria: Be a salaried Virginia Tech employee for the last 12 consecutive months; have an active 403(b) tax-shelter account through the university or an active 457 Deferred Compensation Account through the university; contribute at least $20 per payday to the 403(b) or 457 program; and choose a company to receive the employer $10 match per pay period.

Pricing Services has implemented a new enforcement program, the Intensive Parking Enforcement Patrol (IPEP), in response to complaints of increased illegally parked cars on campus.

This program will target problem areas by sending a special enforcement patrol to these locations. The IPEP patrol will consist of two or three officers who will intensely monitor a specific section of campus for the remainder of the day.

The initial IPEP focus areas are Turner Street (the access road to Burruss loading dock), Derring lot (the large F/S lot off Perry Street), Solitude lot, Owens lot, Engel lot, NEB lot, and the Drillfield. With the implementation of IPEP, Pricing Services hopes to decrease the number of illegally parked vehicles on campus.
Second labyrinth walk scheduled for March 5 on campus

By Sally Harris
Labyrinths, two-dimensional tracks on the floor, are used for walking meditation and contemplation, and the Virginia Tech community will have two different ones to walk Sunday, March 5, in Squires Commonwealth Ballroom.

Darleen Pryds, assistant professor of medieval and Renaissance studies in the Center for Interdisciplinary Studies (CIS) in the College of Arts and Sciences, organized the labyrinths. Pryds will explain the labyrinth walk in her slide lecture at 1 p.m. “Walking the Labyrinth through the Centuries: A Historical and Practical Introduction to Walking the Labyrinth” will be presented in 219 Squires. Participants can walk the labyrinths at any time between 10 a.m. and 5 p.m. Children are welcome to walk the labyrinths, especially between noon-1:30. Walkers should bring socks to wear while walking the labyrinths.

The two labyrinths, which were first found on the floors in the naves of pilgrimage churches of the high and late Middle Ages in Western Europe, are replicas of the labyrinth from Reims Cathedral and Chartres Cathedral. Most labyrinths are round, but the one from Reims is octagonal and has four resting places for contemplation and meditation in addition to the place of walking meditation, not mazes, so people cannot become lost in them.

“Rarely are there different labyrinths available for walking, so don’t miss out on this rare event,” said Pryds, originator of the labyrinth walk at Virginia Tech last year. “Labyrinths attracted pilgrims who wanted to replicate their longer, more arduous journeys in an enclosed space,” Pryds said. “Since the 1990s, walking the labyrinth has grown in popularity in the United States as a means of focusing and clarifying one’s journey and meaning in life.”

Labyrinths can be a place of walking meditation by lay people or a symbol of the pilgrims’ journey, Pryds said. Its popularity is due to the search for ways to meditate using the body, she said. “Although it has been used in the Christian tradition, there is nothing inherently Christian or even religious in the labyrinth,” she said. “It can be used as a completely secular form of meditation.” Pryds also views the labyrinth as a method of dealing with stress.

Pryds decided to build a labyrinth last year to supplement the slides and videos that showed students in her medieval-civilization course the architectural elements of cathedrals. The slides could not give them the actual experience of the labyrinth, she said.

To see drawings of the two labyrinths that will be available, go to http://www.cis.vt.edu/fac/pryds/Labyrinth.html. Also available there are links to other labyrinth-related sites.

The event is co-sponsored by Programs in the Humanities in CIS. For more information, go to http://www.cis.vt.edu/fac/pryds/ or contact Pryds at (219) 631-3967, or by e-mail at dpryds@vt.edu.

---

NEW BIOMED
Continued from 1

By Karen Gilbert, ISE public-relations coordinator

The Industrial and Systems Engineering (ISE) program at Virginia Tech recently joined with the Universidad Politecnica de Puerto Rico (UPPR) to create a unique opportunity for both students and faculty members.

This is the first time a project with Puerto Rican students has been offered through the ISE Senior Design Course. Each university selected two senior industrial-engineering students who were then placed on a four-person team, comprising four teams all together, for a two-semester collaboration. Faculty members of both universities advise the student teams. The common goal of the teams was to work with both Puerto Rican and Virginia-based companies to implement industrial-engineering improvements while gaining experience in a multi-cultural work environment.

By working with Puerto Rican students, ISE faculty members Michael Deisenroth and Patrick Koelling spearheaded this joint project with the UPPR. The joint effort demonstrates the feasibility of using varying technologies, such as video-conferencing, e-mail, the use of a web-based project-management system, and use of a symposium server to host regularly scheduled meetings of the individual teams and their faculty advisors.

As part of the Atlantic States Marine Fisheries Commission’s management plan of 1998, horseshoe crab companies are required to tag a proportion of the crabs they take for bleeding and estimate mortality rates involved in the bleeding process. BioWhittaker, the largest producer of LAL in the country, has asked Berkson and Virginia Tech to conduct this research on its behalf. The research program will also collect demographic data, including size, sex, and approximate age, information critically needed to improve the management of the horseshoe crab industry.

If the horseshoe crab population continues to decline in the absence of coordinated, coast-wide monitoring and fishery regulations, the biomedical industry and all users of the horseshoe crabs would be affected. Berkson says the problem facing scientists in helping policy makers manage the resource wisely is the lack of data. “We have evidence that the population is declining, but because the horseshoe-crab fishery was historically seen as relatively unimportant, we do not have the extensive population data on horseshoe crabs that we need to properly manage the fishery. Now that we realize how important this crab is to the ecological balance of our coastline as well as to human health, we are going to have to work overtime to get the information we need to effectively manage this resource.”

---

SURPRISING
Continued from 1

By Jan Helge Bøhn, associate professor of mechanical engineering (ME), ESM Department Head Ed Henneke will act as interim CBME director.

Eight of the thirteen researchers associated with new center joined the engineering faculty within the past six years, recruited in part because of their work in biomedical engineering. Each year in the U.S., surgeons replace about 500,000 deteriorated hip and knee joints with artificial materials, and one-third of those surgeries are performed on people younger than 65. “For the past 30 years, one of the primary materials used as a bearing surface for total joint replacements has been a polymer similar to the plastic used in milk jugs,” said Joni Rogers Foy, who joined the ESM faculty in 1998.

“Unfortunately, this material is susceptible to wear, often leading to failure of replacement devices.” Foy is studying composite structures designed from a biomechanical perspective, in an attempt to develop joint-replacement materials that are longer-lasting than those currently used.

Foy’s research focuses on orthopaedic engineering, and she is also studying the response of joints to stress. As soon as the four of us met we began working at Electro Biology Inc. in Guaynabo, which was the company sponsoring our project, my partner and I were united with the other half of our team. As soon as the four of us met we began working as a single unit. In our initial meeting with our sponsor company we were able to exchange ideas and concerns as if we had been long-time consulting partners.” Aiken said “It was an unbelievably rewarding experience to be able to work in both an academic and professional environment while learning first hand about a second culture.”