

COLLEGES - ARTS & SCIENCES

To Copy or Not to Copy, That Is the Question

Not too long ago, historians Doris Kearns Goodwin and Stephen Ambrose were embroiled in a controversy regarding allegations that they used other people's work without attribution in some of their writing.

Over time, charges of plagiarism also have been leveled at others — not all of whom were writers.

Asst. Prof. Chris Carlsmith of the History Department says problems of plagiarism are not restricted to the world outside the campus.

"The issue of attribution probably exists at every university," Carlsmith says. "The Internet has changed the whole concept of what it means to do research. It's very easy today for a student to simply cut and paste material. But attribution standards should remain the same."

And, he adds, while good Web organizations will identify their sources, there is a lot of unattributed material out there.

"The advent of the Internet is transforming education in fundamental ways," he says. "The proliferation of online term paper sites and the ease of downloading them and the lack of clear standards for citing Web sources contribute to uncertainty regarding



Asst. Prof. Chris Carlsmith

plagiarism and all this opens a window that didn't previously exist.

"The advent of the Internet is transforming education in fundamental ways."

— Chris Carlsmith

"This is a new reality and we have to deal with it."

Some months ago, Carlsmith began putting together a workshop on plagiarism that he hopes to offer to faculty

members. Modeled on one that has been offered at UMass Boston, it would educate faculty regarding the perils of plagiarism in an online world, and suggest ways to detect and prevent it.

Department of Energy Funds Research on Greenhouse Gases

The Department of Energy (DOE) has awarded a grant of \$206,290 to UMass Lowell scientists, led by principal investigators Anastasios Angelopoulos of the Chemistry Department and Dan Golomb of the Environmental, Earth and Atmospheric Sciences Department, for their inno-

vative research on capturing and storing carbon dioxide.

Carbon dioxide (CO₂) is the principal greenhouse gas, trapping the heat of the earth and leading to the atmospheric warming that so concerns scientists and policymakers. And while periods of unusually warm weather may fall within normal variability, a steady rise of atmospheric temperature can have far-reaching consequences: warmer seasons, coastal inundations because of a rise in sea level, warmer sea temperature resulting in more frequent hurricanes, and melting glaciers that lead to perturbed ocean salinity.

Angelopoulos and Golomb have demonstrated that CO₂ can be dispersed in water with limestone particles under pressure, forming a stable emulsion that can be sequestered in the deep

ocean. Their technique overcomes difficult technical challenges, making the CO₂ emulsion safer for ocean sequestration than releasing CO₂ alone.

"There were two main problems," explained Angelopoulos. "To prevent the CO₂ from simply bubbling up to the surface, the emulsion had to be pumped to a depth greater than 1,000 meters. Also, dissolved CO₂ is very acidic and would be harmful to sea life in the vicinity."

The new research overcomes both difficulties. Using highly dispersed limestone particles, the researchers were able to form stable emulsions of CO₂ in water, with a greatly increased density so the substance can be stored at shallower ocean depths. This increases safety and reduces cost.



Advisory Board Welcomes New Members

The College of Arts and Sciences recently welcomed four new members to its Board of Advisors. They include, from left, David Lussier, history '91; Undersecretary of Public Safety Carol Higgins O'Brien, criminal justice '82 and '90; and Attorney Frank Talty, political science '77. Judie Post, sociology '78, social psychology '93, the fourth member, is not shown.



Members of one of the school teams participating in the regional Botball competition get in some last-minute practice before the actual event.

ROBOTS KICK 'BOT' IN TOURNAMENT AT UMASS LOWELL

UMass Lowell's Costello Gym was the scene of a high-tech, high-energy competition on a recent Saturday, as 11 high school and middle school teams from Massachusetts and Rhode Island competed in the regional level of the national Botball program.

"Students designed, built and programmed their robots to operate completely autonomously," said computer science Asst. Prof. Holly Yanco, the competition coordinator. Yanco, who joined the UMass Lowell faculty in the fall, coordinated this event last year at MIT.

The double elimination tournament is played on a 4 foot by 8 foot board. Two teams face off in an attempt to collect black or white balls into their own end zones. Extra points are gained by tipping over tubes of balls, placing balls in special side target areas or into a tube, basketball style. Capturing the larger Nerf ball also gains many points.

Student teams have about six weeks to create their robots, using kits from the Keep It Simple, Stupid (KISS) Institute for Practical Robotics. Each kit, worth \$1,500, contains a treasure trove of Lego parts, two processing boards, motors, and lots of sensors: light sensors, a light probe, a sonar sensor and bump sensors.

Yanco sees a value in the project of bringing science and math into middle school and high school classrooms, and giving youngsters something very concrete to work on. The kits stay in schools and can continue to be used in physics classes.

RESD Looks at Percentage of Women, Minorities in IT

Information Technology (IT), the defining industry of a new generation of technology professionals, has exploded over the past decade. A recent report from Regional Economic and Social Development Department (RESD) indicates that, as of 1998, there were more than 110,000 IT workers in the Commonwealth. Yet, the relative scarcity of women and minorities in the field has some people wondering why.

The National Science Foundation (NSF) is funding a UMass Lowell study, "Project TechForce: Women and Men in Information Technology Workplaces," to examine the IT workforce in Massachusetts, paying specific attention to the issues and barriers that face women.

The Center for Industrial Competitiveness and the Center for Women and Work are co-sponsoring the \$625,000 study. The research team will be partnering with the Massachusetts Software and Internet Council (MSIC), which is making available its entire membership list of more than 3,500 firms statewide, 800 of which will be selected for the Internet-based survey.

This will be followed by detailed interviews with 200 IT professionals. The exploratory project will establish the nation's first

systematic research and database concerning women and men software workers in IT.

Alzheimer's Research Center Accepted into CFCI

The Alzheimer's research that has been taking place on campus for nearly a decade now has an official home—the Center for Cellular Neurobiology and Neurodegeneration Research directed by Prof. Thomas Shea of Biological Sciences.

Shea established the center at McLean Hospital in the late 1980s and relocated to UMass Lowell in 1994. The Center was accepted into the Committee on Federated Centers and Institutes (CFCI) at the end of 2001.

Shea was prompted to seek formal recognition for the Center after last year's UMass System Neuroscience Symposium at which UMass Lowell's research was prominent. He believes the Center will increase the opportunities for inter- and intra-campus collaboration.

Shea has four assistant directors: Prof. Garth Hall and Asst. Prof. James Lyons-Weiler, biology; and Profs. Robert Nicolosi and Eugene Rogers, health and clinical sciences.

While their Alzheimer's research is most visible, Shea and his colleagues are also investigating motor neuron disease or Lou Gehrig's Disease. The research looks at individ-

ual cells in mice, lampreys or the Petri dish to see how neurons develop and die and what helps neurons



Prof. Thomas Shea is director of the Center for Cellular Neurobiology and Neurodegeneration Research, which studies the development of Alzheimer's and motor neuron disease and potential treatments.

survive, specifically vitamins and antioxidants.

Hall recently received a \$1 million grant from the National Institute on Aging for his work with sea lampreys. Lyons-Weiler researches how genetic factors increase risk for oxidative stress aspects. Nicolosi and Rogers have been studying antioxidants, such as folate and vitamin E, and the relationship of oxidative stress to Alzheimer's Disease. Shea investigates the maintenance and degeneration of neurons.

Shea says he firmly believes there is no cure for Alzheimer's, and that research should focus on treatment and prevention. The latest models show that Alzheimer's Disease doubles for every decade lived past age 65, causing researchers to believe that Alzheimer's is the brain's natural degeneration.

"We might all have

Alzheimer's if we lived long enough," said Shea. "Every dollar put into research now will save hundreds in treatment later" since it is costly to care for Alzheimer's patients.

Twomey's Study of Temporary Workers Prompts Legislation

Regional Economic and Social Development (RESO) graduate Brian Twomey's thesis project on temporary workers in the Merrimack Valley wound up influencing the policy of the Commonwealth of Massachusetts.

Twomey became interested in the situation faced by temporary workers when he volunteered at Lowell's House of Hope. "I had heard some of the horror stories," he says.

He hoped his graduate work could have a positive impact on these workers' lives, but Prof. Chris Tilly of RESO, who worked with him on his thesis, advised him that compelling anecdotes would not be enough to effect meaningful change.

So, Twomey embarked on a multi-pronged study of the lives of the Merrimack Valley's temporary work force. He interviewed several temporary agencies, and even took a temp position working as a day laborer.

What he found was that some agencies engaged in shady practices with their employees, such as charging large fees for van rides to work or for check-cashing. One 39-year-old Cambodian woman reported that she was charged \$8 for a ride despite finding no work one day. Workers like her tend to pay the fee, Twomey says, because they



RESO graduate Brian Twomey played a key role in the passage of the "Fair Transportation Practices Bill," which will provide for greater regulation of the temporary employment services industry in Massachusetts.

fear they won't be called for future jobs, or, for some here illegally, that they'll be turned in to U.S. Immigration and Naturalization Service.

"It seems like the people who can least afford to pay these fees are the ones whom the agencies are charging,"

— Brian Twomey

"It seems like the people who can least afford to pay these fees are the ones whom the agencies are charging," says Twomey.

Working closely with the Merrimack Valley Project (MVP), a labor and community organizing project, Twomey wrote a report that garnered a lot of media attention from Lowell to Boston.

In April of 2001, he testified at the State House in support of a law that would limit agency transportation fees. The "Fair Transportation Practices Bill" was enacted this year.

ATF Research Seeks Device to Detect Explosive Materials

Terrorism, a subject uppermost in the minds of most people these days, is at the center of a project now being conducted by researchers in the Chemistry Department.

Profs. Chien-Chung Chen and William Bannister are principal investigator and co-principal investigator respectively on a \$2 million contract to



Prof. Chien-Chung (Jack) Chen

develop an explosive detection device. Specifically, the contract, awarded by the Bureau of Alcohol, Tobacco and Firearms, is for "Research, Development and Demonstration of Exothermal Explosive Detection System Based on Micro Thermal Analysis."

In layman's terms, Chen says the objective is to develop the device "using tiny sensors and basic principles."

The final product could stand alone or be integrated into existing devices, such as the metal detectors that now guard the entrances to airport gates, federal buildings and other public places.

A stand-alone unit could be hand-held. Using a vacuum wand, it would collect minute particles from luggage, clothing or skin and pass them through a sensor that could detect the presence of explosive material.

It would be, says Chen, "very sensitive."

This area of inquiry is not new for Bannister and the department. Past and present activities have included research on fire prevention and mitigation; characterization of explosives, with an emphasis

on terrorist activities; detection of explosives for anti-terrorist operations in airport security; and identification of illicit explosives.

Concert Band Celebrates 10th Anniversary

Under the direction of Music Prof. David Martins, the Lowell Summer Concert Band celebrated its 10th anniversary at Boarding House Park this season.

The band gave three evening performances that included styles as varied as classic Broadway show tunes and music from *The Gladiator*.

"It still feels new," says Martins. "We feel that the band demonstrates the best in amateur playing."

Close to 70 amateur musicians, including students, alums and many people from non-musical professions, perform with



Professor and Conductor David Martins, right, of the Music Department prepares with Assistant Conductor Blair Bettencourt before a performance by the Lowell Summer Concert Band. The band celebrated its 10th season of performing in the Lowell Summer Music Series this year.

what has become a Lowell institution. Many members have been with the band since its inception.

The band is sponsored by UMass Lowell for the Lowell Summer Music Series.

CSCE Launches Fourth Online Graduate Program

The Division of Continuing Studies and Corporate Education's latest online graduate certificate program is Foundations of Business, a program that will help professionals without an undergraduate degree in business to transition into a master's in business administration program.

"The University's online offerings have been growing exponentially to

accommodate the need of professionals to have high-quality, convenient education," says Dean Jacqueline Moloney of CSCE. "The Foundations of Business graduate certificate will tap into another student market."

"The economy has rejuvenated interest in MBA programs," according to Dean Kathryn Verreault, College of Management. "This certificate program is ideally suited for working professionals who are trying to balance work and family commitments."

The Foundations of Business certificate is the fourth online graduate program at UMass Lowell, including a master's degree in educational administration and certificates in clinical pathology, and photonics and optoelectronics.

Dickens Conference Was the Best of Times

Asst. Prof. Diana Archibald of the English Department coordinated the Dickens and America Conference, held to commemorate the 160th anniversary of the visit of Charles Dickens to the city of Lowell in early 1842. With her is Gerald Charles Dickens, great great grandson of the British author. A world-renowned actor, Gerald Dickens put on two public performances for nearly 1,000 people during the conference.



Fire Fighting Robots Compete in Blazing Competition

Four UMass Lowell Computer Science Department teams ranked in the top 15 out of 62 entries in their division in the Ninth Annual Trinity College Fire-Fighting Home Robot Contest held in Hartford, Conn., this spring.

The challenge for the entrants was to build a computerized (not radio-controlled) robotic device that would move through a maze of four rooms on the single floor of a house, detect fire (a lit candle) and then put it out.

"Jethro," a UMass Lowell robot with a damp sponge mounted on a mechanical arm, won the award for being most innovative—one of only three similar awards in the overall field of 160 entries.

The winning teams earned cash prizes and robot kits. Computer Science Asst. Prof. Holly Yanco, who specializes in robotics, was the team's advisor.



UMass Lowell students display their home-built robots at the Trinity College Fire-Fighting Robot Contest in Hartford, Conn. Four UMass Lowell teams ranked in the top 15 out of 62 entries in their division. Front row, from left, are Matt Samperi, Aravinda Liyanage, Phil Thoren and Mike Baker; middle, from left, are Chris Yiu, Loc Dang, Amal Sen, Frank Fernandes and Ed Giardina; and back row, from left, are Nathan Crouse and Rushabh Mehta.

CAMPUS - OUTREACH

West Plays Integral Role in Lowell Police Race Relations Council

At a Lowell Police Department Race Relations Council meeting, after a presentation about the hazards of traffic stops, a Cameroonian man explained that, while in America it was standard to wait in the car for the officer to approach, in Cameroon it would be offensive if one didn't get out of the car and he or she would be shot immediately for insubordination.

Additionally, he said men do not keep wallets in their pants pockets. As he reached down to pull up his pants leg to show his wallet in his sock, a shot of tension rang through the room as officers put

their hands on their weapons and the other council members froze.

The civilian had proved the purpose of this council—cultural misperceptions can be dangerous.

Established over a year ago by Lowell Chief of Police Edward F. Davis III, the Race Relations Council (RRC) is made up of 30 to 40 police officers and community representatives. RRC was created to strengthen Lowell Police's relationships with the city's many immigrant communities. Cheryl West, community consultant in the Center for Family, Work and Community, was

asked to facilitate the meetings last January.

The group is so diverse in background, representing Lowell's Southeast Asian, African and Latino immigrant populations alongside Chief Davis and officers of mixed race and ethnicity, West found it took a while for the group to unify even with monthly meetings. It was a national tragedy that seemed to bring the group together.

"Sept. 11 helped coalesce the group. People were more willing to work together—they no longer were [separate] groups," says West.

Training Helps Police Identify Hazards at Emergency Sites

Several years ago, a tanker truck rolled over on a traffic rotary in Lowell. In addition to the usual considerations of medical needs and safety, police officers were concerned about an unidentified liquid leaking from the truck's tank. Was it dangerous to breathe the fumes? What were the risks of stepping into the liquid to get to the truck driver? What distance from the liquid would be safe for emergency workers?

Often the first responders to an emergency, police routinely face potentially hazardous situations with little information on the kinds of contaminants involved. In February, that situation began to change,



Participants in UMass Lowell's Emergency Response Awareness course included, from left, Tom Estabrook, trainer; Kyriakoulis Tsouprakos of the Lowell Police Department (LPD); Jimmy Smith, trainer; and, also from LPD, Deputy Superintendent Kenneth Levallee; Diane Capone; and Mao Oeur.

as members of the Lowell Police Department (LPD) participated in an Emergency Response Awareness Course delivered by The New England Consortium (TNEC) at UMass Lowell.

TNEC annually trains hundreds of municipal workers, emergency responders from industry, and others. They also provide hazardous materials training and refresher courses to the 200 members of the Lowell Fire Department.

The course was developed by Estabrook, LPD Chief Edward F. Davis III, and Charles Ouellette, LPD's director of training.

Mayor Calls University 'One of City's Jewels'

Lowell's new mayor, Rita M. Mercier, cannot say enough good things about the people of Lowell.

"Lowell's success as a city has everything to do

with the people who live and work here. Time and again, the people have been there when they were needed," she says.

"They give over and over, whether through organizations or neighborhood groups or in the form of the many public-private partnerships we have in the community."

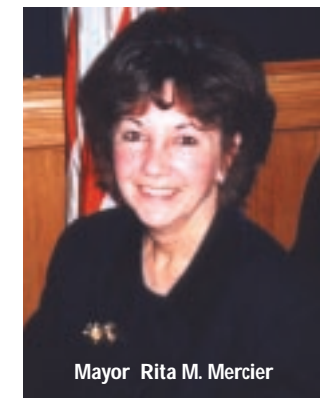
"Lowell's success as a city has everything to do with the people who live and work here."

— Lowell Mayor
Rita M. Mercier

Since taking office in January, Mercier has worked nonstop to let people across the city know that she and everyone on the City team are ready to respond to their needs and work with them to make Lowell a better place. The four-term city councilor is only the third woman to

serve as mayor since 1826. She follows City Councilor Eileen Donoghue, who served two terms as mayor.

Speaking about the University, Mercier says, "UMass Lowell is one of the city's jewels. It's wonderful to see what is happening on campus. Not only are the professors opening up people's minds to the great wonders of the world through education, but the University is making physical improvements like the beautification of the grounds along University Avenue, the athletic fields near the river, and the Campus Center that is under construction. And don't forget the arena and ballpark built in partnership with the city.



Mayor Rita M. Mercier

"I want to extend an open invitation to the University community and to let them know that the Mayor's Office is open to helping them in any way that we can."



RAWA: Afghan Women Fighting Oppression

As part of a special multi-media presentation at McGauvran Hall, Anne Mulvey, center, of the Center for Diversity and Pluralism, hosted guest speakers Alicia Lucksted, left, and Anne Brodsky, both Ph.D.s from the University of Maryland, who spoke of their involvement with RAWA (Revolutionary Association of the Women of Afghanistan), a humanitarian group that runs schools, orphanages and work projects for Afghan refugees.

Recycling Center Continues Grants to Communities, Nonprofits

For the fourth consecutive year, the Chelsea Center for Recycling and Economic Development (CCFRED)—which operates under the umbrella of the UMass Lowell Center for Sustainable Production—is offering grants of up to \$25,000 to cities, towns and nonprofit groups that are pursuing recycling initiatives.

“Recycling-based community economic development,” according to a recent statement from the CCFRED, “calls for communities and local businesses to find opportunities

to recover discarded materials and products from the local waste system for reuse as feedstock in other local enterprises.” The benefits from this, the statement continues, include reduced trash generation and disposal costs, a lower reliance on virgin raw materials, and a lessened demand for trash disposal facilities throughout the state of Massachusetts.

Funding for the Chelsea Center comes from the University of Massachusetts and the Clean Environment Fund.



Enviro-Campers Enjoy Three-Day Program

High school and sixth grade students from Lowell spent three days on the UMass Lowell campus this spring taking part in Enviro-Camp, a program of active learning conducted by the Center for Family, Work and Community. The youngsters attended workshops about asthma, lead poisoning and water quality testing, built model homes and created environmental skits. Standing in front of a group of the participants are Camp Director Khan Chao, center, along with assistants Robin Tanguay, left, and Sokley Oeur.



Girls Get WISE About Science and Engineering Careers

“Don’t be afraid of the microscope” was one of the messages in the medical laboratory science workshop, one of 26 conducted this spring during the annual UMass Lowell Women in Science and Engineering (WISE) program. The medical lab session was led by Donna Richards and Kathleen Calway, medical technologists with the Lahey Clinic Medical Center. More than 400 seventh- and eighth-grade girls took part in the program, now in its seventh year. The keynote speaker this year was Jackie Richter-Menge, a polar researcher with the Army Corps of Engineers’ Cold Regions Research and Engineering Laboratory in Hanover, N.H. Prof. Ruth Tanner of the Chemistry Department is director of WISE.

COLLEGES - GRADUATE SCHOOL OF EDUCATION

Teachers Earn Principalship Certification Online

Lawrence Superintendent Wilfredo T. Laboy came to the Graduate School of Education with a typical problem—a shortage in qualified principal and assistant principal candidates. Laboy had already decided he wanted to develop internal candidates, but the solution developed with Dean Donald Pierson and Hector Torres, UMass Lowell liaison with the Lawrence Public Schools, may now serve as a model

for other districts.

For the next two years, including the summer months, the 26 fellows in the Lawrence Leadership Program will be taking online courses and completing the principalship certification requirements with a practicum. By combining online courses with monthly on-site workshops, teachers can further their education with the convenience of taking classes from home while still receiving the benefits of a classroom experience. Since there is high turnover in the Lawrence Public Schools

and often a sense of isolation, it was important to Laboy that the teachers work together.

The first course, “Principles of Supervision” with Prof. Emeritus Robert Gower, is already underway. Courses taken for the Leadership Program can be directly applied to the master’s in Educational Administration and can be earned with an additional three courses.

Online M.Ed. Success Due to Careful Planning, Outstanding Faculty

Less than a year after the online master’s degree program in educational administration was launched, it was declared a

“The success of the online program, I believe, is due to the convenience of flexible time, satisfaction with the initial experience and response to a need to prepare more candidates for administrative openings.”

— Donald Pierson

success. More than 80 students were enrolled in the four courses available, not including an additional 26 from the Lawrence School system in the Lawrence Leadership Program.

And while the majority of students are still in-state, there is a steady increase in enrollment from other parts of the country such as California,

Mississippi and Ohio.

Jacqueline Moloney, dean of Continuing Studies and Corporate Education (CSCE), says the program was developed in cooperation with the Graduate School of Education.

UMass Lowell’s first online graduate degree program, the result of more than a year of planning, enables students to be certified as principals.

“The success of the online program, I believe, is due to the convenience of flexible time, satisfaction with the initial experience and response to a need to prepare more candidates for administrative openings,” says Dean Donald Pierson of the Graduate School.

CSCE provides the administration, counseling and advising for the program—which presents its own challenges. While it is exciting to have students from other states participating in the program, the Continuing Studies staff and Graduate School faculty have had to learn about different certification requirements for those states.

Pierson says he sees the master’s in educational administration as a primary online niche for now, though some electives will continue to be added. Additionally, he envisions science and math courses being made available for aspiring and experienced teachers.

Graduate School of Education Excels In Pass Rate for Teacher Test

Those who have completed the Graduate School of Education master’s degree program earned a 97 percent pass rate, 10 percent higher than the statewide average, on the 2000-2001 Massachusetts Test for Educator License. All 34 test-takers

“The continuing positive results our students are achieving is a testament to the types of students we enroll and the solid curriculum developed by our faculty.”

— Donald Pierson

passed the Communications and Literacy Skills tests. The majority of the test takers also took the Elementary Education content area test, with a 95 percent pass rate.

“The continuing positive results our students are achieving is a testament to the types of students we enroll and the solid curriculum developed by our faculty,” says Donald Pierson, dean of the Graduate School of Education.

Pierson noted that the number of UMass Lowell students who take the test has declined due to alternative routes to certification for prospective teachers, including the Massachusetts Institute for New Teachers (MINT) Program, in which the GSE participates.

COLLEGES - ENGINEERING

UMass Engineering Prof Appears on PBS Special

UMass Mechanical Engineering Prof. James Sherwood, who has already received wide acclaim as well as more than \$1 million in grant money for his work on the testing of the balls and bats used by Major League Baseball, was among a handful of men and women profiled on a recent PBS special devoted to the effects of technology on modern sports.

Sherwood, among other services he is performing for baseball, has developed a system that measures bat-speed as well as the velocity of batted balls.

One segment included in the “On the Ball”



Prof. James Sherwood

program, focusing on the differences between the sounds of wooden and aluminum bats, was made with the participation of the UMass Lowell baseball team.



Shaun Montminy, a senior in mechanical engineering, "flies" the latest and most elaborate of three flight simulators used by students taking "Aerodynamics and Flight Mechanics," an elective course taught by Prof. Gene Niemi.

Ball 222 Houses Flights of Fancy

A visitor passing Room 222 in Ball Hall might be surprised by what sounds like the drone of an airplane engine. Actually, that's what it is. Sort of.

Room 222 is the home of three Personal Computer Aviation Training Devices—or flight simulators—that Prof. Gene Niemi of Mechanical Engineering has been using for about three years in a senior elective course called Aerodynamics and Flight Mechanics.

The simplest one—with a yoke, a few buttons, and an instrument panel displayed on the monitor—is, as Niemi says, "like the kind that kids can use at home."

The second one has a panel with a yoke, rudder pedals, flaps, trim tab control, radio buttons, an instrument array on the monitor and other features. When you start it up, it sounds like a single-engine plane.

These computerized units come with different software packages that enable the operator to configure the simulators as anything from small planes to airliners.

The newest addition to this "hangar" of equipment is a ground trainer donated to the University recently by the Bridgewater State College Aviation Science Program. Used at Bridgewater to train pilots in conjunction with local flying school courses, this simulator has a complete instrument panel (not a monitor display) with all instruments and controls.

Niemi, who has a pilot's license himself, says his aerodynamics class averages about 15 students a year. Each student is required to complete three projects, one of which deals with the flight simulator.

"The simulator requires a lot of extra work, a lot of practice," he says, "but the

majority of them elect to do it because they find it so interesting.

"If faculty can provide students with something exciting, they'll do it even if it requires more work. It's a hands-on, practical experience and it's fun," he adds. "That's what education is all about."

Fuel Cells May Be the Answer When the Fossils Are Gone

When fuel from the earth's very last fossil is pumped from the ground and consumed—what then? How do we generate heat and light?

That's not a new question, of course. Two possible answers are wind and solar power (photo-voltaics)—and experiments on both of those options have been underway at the University for some time.

A third option, fuel cells, is now gaining popularity; or, as Prof. Ziyad Salameh, chair of the Electrical and Computer Engineering Department, says, "It's the



Panhathai Buasri, a doctoral candidate in electrical engineering, opens a hydrogen tank valve that allows the gas to flow into fuel cells, where it will combine with oxygen to generate electricity. Prof. Ziyad Salameh says fuel cells are a "clean, noiseless source of energy."

hot topic of research everywhere."

One of those places is Ball 310, where fuel cells—two nondescript black metal boxes sitting on shelves beside a tank of hydrogen gas—power a rack of two dozen 24-volt batteries.

The hydrogen is piped into the cells where it combines with oxygen from the atmosphere and passes through a catalyst that produces water and electricity. The water drains off into a sink, and the electricity flows through a DC controller from whence it charges the batteries.

"Sooner or later," says Salameh, "fossil fuel will be depleted. Fuel cells are one source being considered for the future generation of electricity. We hope that when the cells become affordable enough—maybe in 10 years or so—they will be used to generate electricity in homes, using natural gas.

"Each house will be autonomous, generating its own power. There will be no need for overhead lines

or to pay anyone to manage the distribution of electricity. Fuel cells will be a clean, noiseless source of energy."

Cyber Lab Makes It Possible to Conduct 'Hands-off' Experiments

Working "a little here and a little there" over the last year or so, Systems Analyst Glen Bousquet has developed a system by which mechanical engineering students can conduct laboratory experiments via the Web.

The arrangement eventually will enable students to view or conduct about half a dozen experiments. But, the first one concerned itself only with the thermodynamic efficiency of a pump.

The pump in question sits on a bench at the back



Systems Analyst Glen Bousquet demonstrates his new system by which students can view or conduct lab experiments via the Web. The monitor displays an image of the pump on which an experiment for thermodynamic efficiency is conducted.

of the lab in Ball 118, attached to the requisite number of cables and wires connecting it to a video camera, a computer and a monitor. The camera records the pump's movements and transmits them to the computer so that the experiment can be viewed and controlled by remote.

The way it works is that a student using a computer at any remote location can connect with the computer in the laboratory and conduct the experiment him/herself, or watch while it is conducted by someone else. Any number can view the process, but only one person at a time can actually carry out the experiment.

Prof. John McKelliget, chair of the Mechanical Engineering Department, says Bousquet's project is a "very worthwhile effort that we support. Laboratory space and equipment are at a premium and this will make it possible for more students to access the facilities."

The project, which he calls a Cyber Lab, will enable students to conduct an experiment before or after it is discussed in class, giving them a greater insight into the findings. In some cases, Bousquet says, the instructor might access the experiment in the classroom, project it onto a screen, and conduct it in real time to demonstrate the procedure.

COLLEGES-HEALTH

On the Healing Powers of Emu Oil

Prof. Robert Nicolosi doesn't handle the actual emus. There's simply no room for them in the laboratory.

"Have you seen an emu? Those are big birds," he says.

Instead, the director of the Center for Health Sciences, Health Promotion and Public Health orders the vials of emu oil—"it looks like any other oil"—and goes to work on that. No feathers, no beaks, no pecking and squawking—just the viscous dribble from the fatty tissue that encases emu organs, bottled up and stored in the lab fridge. That's where the miracle resides.

Emu oil has been touted for years as a rub-on cure for aches and pains, aging and dry skin. On late-night television, B-list celebrities and retired athletes vouch for its healing powers and hold aloft vials of goo with names like "Emu Fire" and "Blue Stuff." Nonetheless, emu oil has failed to earn a spot on the natural healing shelf alongside ginkgo, St. John's wort and the rest of the sanctified natural remedies.

The emu oil industry decided that that validity would only come with some bona fide scientific testing; this in mind, the American Emu Oil Association gave Nicolosi a buzz. Then they gave him a grant for \$30,000, and mailed him a gallon of

their eponymous oil.

Partnered with researchers at the Forsyth Institute in Boston, Nicolosi and researcher Tom Wilson have so far found some definite benefits to the use of emu oil—at least in mice with skin inflammation, and hamsters with high cholesterol.



Prof. Robert Nicolosi

Board of Higher Ed Approves New Degree Programs

The Board of Higher Education (BHE) has approved two new graduate degrees for the Lowell campus.

The College of Health Professions will now offer a doctorate in physical therapy, and Lowell will jointly offer a master of science and Ph.D. program in biomedical engineering and biotechnology with the Boston, Dartmouth and Worcester campuses.

This fall, the Department of Physical Therapy began enrolling students in a Doctor of Physical Therapy (DPT) program. The fully accredited, post-baccalaureate program requires a three-year full-time commitment, including part of each summer and a total of 35 weeks of clinical experience.

“This is consistent with the direction of the American Physical Therapy Association, which is phasing out baccalaureate programs in PT,” says Dean Janice M. Stecchi of the College of Health Professions.

“Practitioners are more often involved in an autonomous practice, where they can diagnose and treat patients within their own discipline. They are in a position to refer patients and get referrals, rather than simply responding to doctors’ diagnoses.”

Lowell’s master’s degree in physical therapy is being phased out. Most current students have opted to transition into the doctoral program, but the college will honor its commitment to those who choose to pursue only their master’s.

The multi-campus, interdisciplinary master of science and doctoral program in biomedical engineering

and biotechnology will enroll its first class in January 2003.

Assoc. Prof. Bryan Buchholz of the Work Environment Department was named system-wide director of the program and will serve as the overall coordinator for its implementation.

The doctorate is designed to bring together the allied disciplines of biomedical engineering and biotechnology and will be open to a wide range of baccalaureate degree recipients with engineering, physical science, life and clinical sciences, and related backgrounds.

The program will emphasize a multidisciplinary, team approach in course presentations, laboratory rotations, and joint research projects prior to dissertation specialization. Partnerships with biomedical industries will be encouraged to enhance collaborative research

opportunities with faculty and to develop graduate internships for doctoral candidates.

COLLEGES - MANAGEMENT

Assessing the Cost of Doing E-Business

Only a quarter of a century ago, only a few offices possessed such exotic pieces of office equipment as a personal computer or a fax machine. Now they are part of the cost of doing business.

In the last several years, the new exotica has become whether or not a company is engaging in e-commerce; Do they have a Web site? Are they online? If not, why not?

In light of the increased presence of e-businesses (E-Bs) in the past few years, Profs. Riaz Khan and Luvai Motiwalla, both of Manufacturing and MIS Group, are conducting a study, “An Intra and Inter-Industry Analysis of E-Business Initiatives.”

According to Khan, little is known about the impact of E-B initiatives on the financial health of companies. This would be the first attempt they are aware of to test the widely held belief that doing business online will greatly enhance a company’s profitability.

The study grew out of UML-run workshops, first for the Lowell Small Business Assistance Center, and then several held on campus through a Public Service Grant from the



Profs. Riaz Khan and Luvai Motiwalla of the Manufacturing and MIS Group review the data of their latest collaboration, an examination of the financial health of e-business companies.

University. The E-B workshops were very popular with government offices, local banks and new companies trying to keep up with the new wave of marketing tools and practices.

Khan says they decided to compare the financial performance of companies that were engaging in E-B initiatives to those that were not. They also looked at how the E-B firms did both before and after 1996 when e-commerce really took off.

According to Khan, “Overall, E-B has impacted business performance, but the positive results have been exaggerated. In addition, benefits are not similar across an industry or within each company.”

Despite the ambiguous results so far, Khan believes they will recommend that companies should pursue a strategy that includes an E-B initiative.

“It is beneficial to enter E-B,” Khan says, “if, for no other reason, than to remain competitive.”

CAMPUS - OUTLOOK

Separate Funding Keeps Capital Projects on Track

Capital funding is keeping construction projects around campus moving forward, despite tight operational budgets throughout the UMass system.

“In 1995, the state bonded money for capital projects on the UMass campuses,” explains Diana Prideaux-Brune, special assistant for Economic Development. “This capital money is completely separate from the state budget.” The state regularly issues bonds (roughly

the equivalent of taking out a loan) to cover the cost of maintenance and upgrades for state-owned facilities. State law prohibits spending capital money for operating expenses.

Safety, accessibility and increased efficiency are goals of the projects now underway across the Lowell campus. “With the student business offices moving into Dugan Hall, our number one priority on South is to make that building accessible,” says Prideaux-Brune. Plans also call for increased lighting along Broadway, three new emergency call boxes, a more visible pedestrian crosswalk, and a bus stop that enables buses to pull

out of traffic when stopped. “All of the new landscaping across campus has low-maintenance plantings and irrigation systems,” she adds.

On North campus, planned construction includes upgraded fire alarms in Olsen, new chillers in Pinanski, and repairs to the terrace of Alumni Hall. Lydon Library will have handicap bathrooms and upgraded elevators.

CAMPUS - PEOPLE

Bill Hersey and the After Hours Band: Still Making That Old-time Music

Bill Hersey was 50 years old when he took his first trombone lesson—on a used, years-old horn—from a UMass music major. He was in his 15th year as a UMass Lowell English teacher, had never played an instrument in his life, and “couldn’t have told you the difference between a sharp and a flat.”

But he’d always loved jazz—the “sound of brass” especially. And someone, a long time ago, had remarked to him that the trombone had a soul all its own. He had never forgotten that:

“Because it’s right. As soon as he said it, I knew it was right. The instrument has a soul. If you listen—if you know how to listen—you can hear it.



English Prof. Bill Hersey, trombone at the ready in his campus office, has been playing with the “After Hours” jazz band since first learning the instrument nearly 20 years ago.

You really can.”

And so he got himself a trombone, then a teacher. And he learned to play. Two or three years later, when he’d gone about as far as he could go on his own, he looked around for a group. And found one: the After Hours Band, based out of the Lowell area, headed by a drummer named Earl Powell.

“They’d been together only about three years at the time,” he remembers. “But most of them had been playing all their lives. I was the new boy. They were generous to take me in.”

Bill Hersey will be 70 on his next birthday. He is still teaching English—which he’s done now for 42 years, 35 of them at UMass Lowell. And he’s still on the trombone with the After Hours Band.

Soon, says Bill Hersey, there’ll be more time than ever for practice:

“My retirement’s coming up. And playing



Key faculty in the two graduate programs approved this year by the Board of Higher Education are, seated, from left, Dean Janice M. Stecchi of the College of Health Professions, and Prof. Susan O’Sullivan, newly-elected chair of physical therapy; and, standing, from left, Prof. Joseph Dorsey, outgoing chair of physical therapy; Dean Jerome L. Hojnacki of the Graduate School; and Assoc. Prof. Bryan Buchholz of Work Environment, first director of the graduate program in Biomedical Engineering and Biotechnology.



Federal Legislative Aides Visit Campus

Senior Scientist Andy Gatesman, left, and Prof. Jerry Waldman, right, co-director of the Submillimeter Wave Technology Laboratory, explain the workings of the lab to Stephen Kerrigan of Sen. Edward Kennedy’s office and Mark Gallagher, district director for Rep. Edward Markey. The two visitors were taking part in “Forging Partnerships for a Sustainable Economy,” an event that also attracted staff from the offices of Sen. John Kerry and Rep. Marty Meehan. The day included a welcoming talk by Chancellor William T. Hogan, tours by Diana Prideaux-Brune, special assistant for Economic Development; and Dr. Peter O’Connell, director of the Tsongas Industrial History Center. Speakers at the luncheon program at Wannalancit Mills included Dr. Louis Petrovic, director of External Funding, Technology Transfer and Partnering; Provost Robert Wagner; Howard Berke, visiting professor of business; Prof. Stephen McCarthy of Plastics Engineering; and Prof. Susan Braunhut of Biology.

the trombone—getting better at it, learning a few more things—that’s one part of it I’m really looking forward to.”

UMass Lowell Writer Nominated for National Magazine Award

Tapped to stand alongside writers from the *New Yorker*, *Time*, *Atlantic Monthly* and *Fortune*, publications office senior writer Geoffrey Douglas was a finalist for America’s most prestigious magazine writing award.

Douglas’ story, “A Question of Life and Death,” in the September 2001 issue of *Yankee* magazine was one of five finalists for the American Society of Magazine Editors’ (ASME) National Magazine Award in the category of reporting. The story traces three weeks in the life of a baby born with devastating handicaps, and the ethical questions facing his parents and the doctors and nurses in charge of his care. To research the story, Douglas spent months in offices and conference rooms at Boston Children’s Hospital, where the ultimate question loomed as to how far the doctors should go to keep the child alive.

Douglas writes regularly for *Yankee*, and has in the past written for *Esquire*, *The Village Voice* and *Boston*. He has also published three books: *Dead Opposite*, *The Game*



Geoffrey Douglas

of *the Their Lives*, and *Class: The Wreckage of An American Family*.

He has been writing for the *Shuttle* and the alumni magazine since 1998. His magazine cover stories have included “A Blueprint for Diversity,” recounting the first 10 years of the Demonstration School; “Joe In Toyland,” a profile of alumnus Joe Gandolfo who was then president world-wide of manufacturing operations for Mattel; “Following the Weather,” a story about four alumni who became meteorologists on television; and “The More Things Change,” a look back at 50 years of the University’s growth.

CAMPUS - RESEARCH

DARPA Director Visits Campus

UMass Lowell Chemistry Prof. James Whitten, front, demonstrates the workings of a University surface analysis machine to, from left, UMass Lowell Chancellor William Hogan; Dr. Anthony Tether, director of the Defense Advanced Research Projects Agency (DARPA); and U.S. Rep. Marty Meehan. Tether visited the campus for tours and briefings at the request of Meehan, ranking member of the Research and Development Subcommittee of the House Armed Services Committee. DARPA is concerned with the research and development of highly advanced devices and systems for military use.



Prof. Waldman Named Researcher of the Year

Prof. Jerry Waldman, second from right, director of the Submillimeter-Wave Technology Laboratory, was named Researcher of the Year during the University’s Excellence in Research Day program this spring. With him are Biological Sciences Prof. Thomas Shea, left, a nominee for the honor; Louise Griffin, associate director of the Research Foundation, which sponsored the faculty event; and Dean Robert Tamarin, Division of Sciences, College of Arts and Sciences. Absent from the photo was another nominee, Prof. Kanti Prasad of Electrical and Computer Engineering. Waldman’s lab, the only modeling and research facility of its kind in the country, creates simulation studies of sophisticated radar systems.

A Constant Through Three Decades of Change, Duggan Retires

Larry Siegel, director of Residence Life, was one of the many staff members, faculty and students at the Alumni Hall farewell party for Ellen Duggan. Duggan retired this spring as Dean of Students, after 32 years at UMass Lowell.



In the year that Ellen Duggan arrived at UMass Lowell, a faction of the school’s 21 female students had camped out on the campus lawn to protest the University’s housing policy. There were no dorms allotted for that first class of women, and in 1970, the best way to answer such an injustice was with a big, loud, protest.

“It was a rather activist time,” Duggan says, sitting back in her Cumnock Hall office during her last spring as dean of students.

“Back then we had food fights, protests, demonstrations, all of that.”

Probably a jolt for a woman who had gone to the convent straight out of high school, and had been teaching sixth grade—not a big year for civil disobedience—when she was hired to come to Lowell. But there wasn’t much time to worry about that. Student life at Lowell was defined by the nationwide sense of upheaval, and the University was adapting to a strident generation of Baby Boomers come of age. The daughter of a Boston longshoreman, Duggan had never expected to end up in the midst of all this early-adult angst. But she soon found she liked it.

By 1973, her focus had shifted to Fox Hall, where the University established its first floor of rooms for women—nestled among 11 floors of young men. The reaction was predictable.

“It was like bees to honey,” Duggan said. “But we fended them off.”

The female population flourished under Duggan’s advocacy, and the numbers grew. Within the first few years, women moved beyond Fox Hall and began claiming their own dormitories.

“It was like Pac Man,” Duggan says.

“This is a can-do campus. It was when I got here, and it is today.”

— Ellen Duggan

Over the years, Duggan’s job expanded to all residence halls—she became assistant dean for residential life in 1977—and then to all students. The more students the University drew, the more creative she had to be to accommodate them. In the early 1980s, she was calling local churches and synagogues to find room for a wave of new students arriving in the fall. Campus life changed again when North and South merged, and humanities departments cropped up to balance out engineering and technical sciences.

“We’ve gone from a heavily white male campus to a place that’s incredibly diverse,” she says, noting that all the students when she started were between 18 and 22 years old.

Amidst all these changes, though, “there have been some constants,” Duggan says. “This is a can-do campus. It was when I got here, and it is today.”

Duggan left UMass Lowell in late May with a big send-off party in Cumnock Hall. She might take up golf, she says, and spend some time at her place in Southern Maine.

“I don’t know,” she says. “I’ve never had such a long stretch of free time.”

Duggan leaves the University after 32 years of perhaps the most dramatic changes in its history. It was all new to her in the fall of 1970, when she showed up to find the women shouting out of a tent on the North Campus lawn. But she hit the ground running.

“I found my niche here big time,” she says. “And I never looked back.”

New \$15 Million Center Called 'Heartbeat' of the University

By Jack McDonough

The new \$15 million Campus Recreation Center — a 65,000-square-foot facility that will serve the recreational and sports needs of the entire University community — had its official opening at the beginning of the 2002-03 academic year in September.

The sparkling, two-story edifice of brick, glass and steel is situated adjacent to Fox Hall on the North Campus.

"This is a long-awaited project that will play an important role for every generation of Lowell student from this year forward," says Athletics Director Dana Skinner.

The Center includes three basketball courts, two racquetball courts, a squash court, a multi-purpose room for activities such as dance and martial arts, a 6,500-square-foot dual-level fitness area complete with mirrored walls and eight-speaker sound system, a one-eighth-mile seamless rubber compound running track, and two fully equipped locker rooms.

Recreational Sports Director Brad Navis says, "We're talking about a facility that will touch the lives of every physically-active student on campus. It's a real quality-of-life upgrade for everyone involved."

The fitness area alone, Navis says, includes 50 cardio machines, 12 treadmills, 16 stationary bikes, and a full line of exercise equipment and free weights, and a separate stretching area.



Athletics Director Dana Skinner, standing on the running track overlooking the gymnasium floor, says the Center "will play an important role for every generation of Lowell student from this year forward."

"This is a long-awaited project that will play an important role for every generation of Lowell student from this year forward."

— Dana Skinner
Athletics Director

As an outgrowth of the new space devoted to recreational sports, a full-time staff will direct the intramural and club sports programs. The number of student jobs will more than double when all programs are in place.

The building design, drawn by Architectural Resources Cambridge, took three years to complete. Consigli Construction built the facility in about a year and a half.

Architect Jay Weber says, "Of all the designs on which I've worked, this building is my favorite. It evokes some of the manufacturing and mill building feel that is so important to Lowell history, yet it's also very bright and open and welcoming."

Weber says he's particularly pleased with the building's handsome, exposed steel trusses arching high above the gym and fitness areas.

"They animate the space," he says. "They're clever and important. They provide a sense of brawny structure and the building would feel very different without them."

The structure, he explains, is actually two separate buildings — the gymnasium and the fitness area — with a lobby between them.

"And the lobby is a pleasant place to be. It has the texture and feel of being outdoors but it's comfortable and air conditioned," he adds.



The running track on the second level of the Center consists of two seamless layers of rubber poured over a concrete base.



The main gym area has three basketball courts and is also striped for volleyball and badminton.

A lot of thought went into the building's design.

Beneath the wood floor of the multi-purpose room, for example, is a layer, or slab, of concrete. This slab "floats" on a foam pad layer, beneath which is another concrete slab. The flooring was designed in this manner to deaden noise that otherwise would be heard in the meeting rooms below.

The running track is made of two layers of a poured rubberized compound. The top portion is firmer for ease of running, while the bottom layer is softer to absorb the shock to the runner's legs.

The floor of the fitness area is made in similar fashion but the formulation

is firmer to resist damage from the heavy fitness equipment.

And the large windows that allow sunlight to brighten the gymnasium have been treated with a ceramic coating in a pattern of dots that reduce heat and glare.

Project Manager Hector Valdes of the University's Office of Economic Development says the design and construction process went very smoothly but that there were two surprises.

The first came when construction workers

This outside patio area graces one section of the new Recreation Center, which was three years in the design process and more than 18 months in construction.





The building was designed with long span steel trusses and huge windows that create an atmosphere of light and airiness.

digging footings for the building found old automobile parts and other odds and ends buried under the old Fox Hall parking lot surface in areas on which houses once stood.

The other surprise was the fact that the Advancement office's commemorative Brick-by-Brick campaign was so successful that it made a small design change necessary. So many bricks were purchased that they exceeded the lobby wall space originally reserved for that purpose and a larger section had to be used.



Both the men and women's dressing rooms have ample locker space. In addition to showers, each also has a sauna.

In discussing the significance of the new facility, Dana Skinner says, "It's extremely important to provide students with a well-rounded college experience so that they will have an emotional



The weights await.



An overhead view of the two-floor fitness center, flooded with natural light and loaded with weights and machines for every muscle.

attachment to the University when they leave. This is important in terms of generating future support for the school and in terms of future enrollment. Graduates who feel an attachment to the University are much more likely to send their children here."

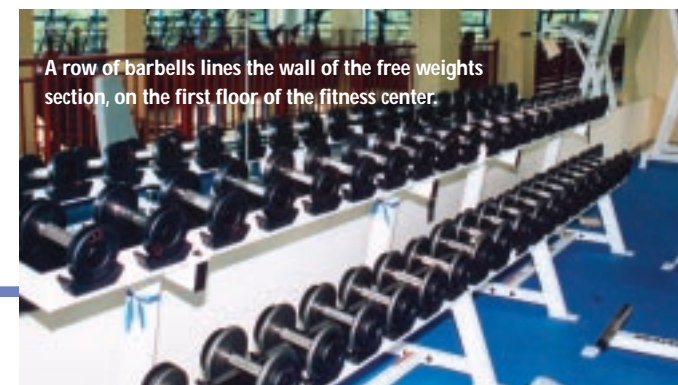
Skinner says he hopes the new Center increases the level of campus activity significantly and that it "better connects the recreational activity with other non-academic campus experiences such as concerts, movies and other activities.



Heating and air conditioning machinery is housed in three separate areas of the building and is computer-controlled.

"The challenge for us," he continues, "is how to use that building — along with Tsongas Arena and LeLacheur Park — to improve the quality of life on campus. We've never had a broad strategy to address that challenge in the past but now we have an opportunity to bring together students with a variety of interests.

"This new Center," he adds, "provides the heartbeat. It enables us to integrate the campus recreational program with other campus activities and complement the terrific academic experience that already exists."



A row of barbells lines the wall of the free weights section, on the first floor of the fitness center.



Runners on the treadmills can look out over the Merrimack River or LeLacheur Park

"We're talking about a facility that will touch the lives of every physically-active student on campus. It's a real quality-of-life upgrade for everyone involved."

— Brad Navis
Recreational Sports Director



The exercise cycles, elliptical running machines and stair-stepping machines are arranged around a second floor balcony, looking down on the first floor. Ten of the machines on the upper floor are equipped with personal televisions.

Fall festival 2002 October 4-5

We hope you will join us in early October as the leaves are turning, a New England chill is in the air and the campus is alive with student activity. Our fourth annual Fall Festival Weekend, combining Reunions, Homecoming and Family Day, will have something for everyone in the UMass Lowell family; from Reunion dinners to open houses, from live performances to a football game.

The Festival includes:

- Reunions for 1952 (50th), 1962 (40th) and 1977 (25th), currently in the planning stages. If your class year ends in 2 or 7, and you would like to help plan a reunion for your class, please contact the Alumni Relations Office.
- Golden Alumni Luncheon (Friday, Oct.4) includes all classes 1952 and earlier
- Department/College receptions
- Class Reunion Dinners
- Family Day (Saturday Oct. 5 from 11 a.m. to 4 p.m.) craft fair and foodfest, old time photos, caricature artist, pony rides, live performances and more!
- Campus Center Tours
- Mill and Canal Tours
- Alumni Luncheon in a tent adjacent to the football field
- Homecoming Football Game - River Hawks vs. Bentley College, Oct. 5 at 2 p.m.
- Retirement Celebration for Prof. Dean Bergeron
- Francis Cabot Lowell Awards Dinner

Fall Festival 2002 Schedule of Events

Friday, October 4th

Noon
Golden Alumni Luncheon
Join us as we honor the Class of 1952 Lowell Textile and State Teachers graduates along with emeriti alumni from all preceding classes.
Wannalancit Mills, 600 Suffolk St., Lowell
First Floor Conference Room \$15

2:30 p.m. to 3:30 p.m.
Campus Tours for Golden Alumni
Buses will leave from Wannalancit Mills. After campus tour, buses will take you to Alumni Receptions and then back to your cars.

3:30 p.m. to 4:30 p.m.
Alumni Receptions
Join the Deans, faculty and classmates to hear about what's new! All alumni welcome.
Textile and Tech Grads - Francis College of Engineering - Kitson Hall 309, North Campus
State Teachers Grads - Graduate School of Education - Coburn Hall
Buses will return you to your cars after the receptions.

7 p.m.
Reunion Class Receptions and Dinners - Renew old friendships with your classmates and tour the wonderful historical exhibits.
50th Reunion, Class of 1952
40th Reunion, Class of 1962
25th Reunion, Class of 1977
American Textile History Museum, 491 Dutton St., Lowell
\$35/Cash Bar

Saturday, October 5th

9 a.m.-11a.m.
Open House in honor of the first graduating nursing class (1972) on the occasion of their 30th Reunion. All alumni welcome.
Weed Hall, South Campus

9 a.m. to noon
UMass Lowell Foundation Board of Advisors Meeting
Campus Center, adjacent to Fox Hall

9:30 a.m.
Pawtucket to the River Canal Tour
This is a 90-minute journey on foot, trolley and boat along the Pawtucket Canal to the Francis Gate, through Guard Locks and onto the Merrimack River. See how Lowell's methods of providing transportation, controlling water and holding back floods are all used at this site.
Meet 15 minutes prior to tour at Lowell National Historical Park, Visitor Center, 246 Market St. Space is very limited for these tours so please pre-register toll free at 877-UML-ALUM. \$5

10 a.m.
Field Hockey v. Bloomsburg University (Cushing Field Complex)

11 a.m. to 3:30 p.m.
Family Day
Come to South Campus Quad for Chancellor Hogan's welcome address. (11:30 a.m.) Bring your family and enjoy a variety of activities including a Craft Fair and Food Fest, Old Tyme Photos, Caricature Artists, Pony Rides and a musical concert.
Alumni, Please note! Be sure to look for the Alumni Table in the Gazebo to register to win great prizes and to be reunited with other alumni.
South Campus Quad, corner of Broadway and Wilder Streets

Fall Festival 2002 Schedule of Events

Noon to 1:30 p.m.
Homecoming Luncheon - Join fellow alumni for a pre-game Cookout. Reserved seating for Reunion classes. (Those ending in 2 and 7)
Tent adjacent to the football field, Cushing Athletic Complex, North Campus \$10

12:00 p.m.
Volleyball v. Le Moyne College (Costello Gym)

1:00 p.m.
Men's Soccer v. Franklin Pierce College (Cushing Field Complex)

2 p.m.
Homecoming Football Game
UMass Lowell River Hawks vs. Bentley College
Cheer on our River Hawks at our great new football field. Reduced price tickets for alumni will be distributed at the Homecoming Luncheon tent. \$3
Cushing Athletic Complex, North Campus

1:00-5:00 p.m.
Professor Dean Bergeron's Retirement Festivities
Join alumni, faculty and friends to toast and roast Professor Bergeron as he moves on to his next endeavor.
Brewery Exchange, 199 Cabot St.
\$15/Cash Bar

5:30-7:00 p.m.
Reception for Francis Cabot Lowell Award recipients and guests
Wyndham Andover Hotel, 123 Old River Road, Andover
Hors d'oeuvres/Cash Bar

7:00 p.m.
Ice Hockey v. Concordia University (Tsongas Arena)

7:00 p.m.
Francis Cabot Lowell Awards Dinner
Join us for our 5th Annual Francis Cabot Lowell Awards.
Wyndham Andover Hotel, 123 Old River Road, Andover \$35/pp

The 2002 Francis Cabot Lowell award recipients are:
Michael Morin '76, Sciences Alumni Award; Lorenzo Cabrera '94, Sciences Young Alumni Award; Sheila Anderson Kirschbaum, '76, Education Alumni Award; Joseph Spadano '92, '96 Ed.D., Education Young Alumni Award; Robert Sloan '50, Engineering Alumni Award; Garrett Thurston '90, D.Eng. '95, Engineering Young Alumni Award; Anita Moeller '88, Fine Arts, Humanities and Social Sciences Alumni Award; Anne Veilleux '85, Health Professions Alumni Award; Catherine Y. Read, Ph.D. '01, Health Professions Young Alumni Award; Gary Mucica '71, Management Alumni Award; Thomas A. Golden Jr. '94, '02, Management Young Alumni Award; Dr. Kenneth Geiser, Faculty Award; Dr. Lan T. Pho, Staff Award; George Eliades, Honorary Alumni Award.

Registration Information

To attend any event during Fall Festival '02, please register in advance. Complete the registration form and return it with payment to the Office of Alumni Relations no later than September 27. Your registration will be confirmed and we will send you a campus map. Packets will be provided at Registration Tables during the weekend. Pick up your packet on Friday at Wannalancit Mills, 2nd Floor from Noon to 5, at the Golden Alumni Luncheon and at the Reunion dinners for the classes of 1952, 1962 and 1977. On Saturday, packets will be available from 11:45-1 at the Homecoming/Reunion Luncheon tent adjacent to the football field. Homecoming game tickets will be distributed outside the Tent.

Dress Code

Business attire: Francis Cabot Lowell Awards and Reunion Dinner.
Casual attire: All other events.

Campus Bookstore

The Barnes & Noble University Bookstore will be open the following hours during Fall Festival Weekend:
North Campus Friday, October 4 (8:30 a.m.-4:30 p.m.) Falmouth Hall
South Campus Friday, October 4 (8:30 a.m.-4:30 p.m.); Saturday, October 5th (10:00 a.m. -4:00 p.m.) McGauvran Hall

Accommodations

*Courtyard by Marriott, Lowell
\$69 plus tax per room/per night
(978) 458-7575

*Radisson Heritage Hotel, 10 Independence Drive, Chelmsford
\$89 plus tax per room per night
(978) 256-0800

*Wyndham Hotel Andover
123 Old River Road, Andover
\$99 plus tax per room per night
(978) 975-3600

*The Office of Alumni Relations has reserved a block of rooms for Fall Festival at these hotels, but rooms are limited so please make your reservation no later than September 10th. Please identify yourself as a University of Massachusetts Lowell alumnus/a for the above rates.



RSVP Registration Form

Fall Festival '02 RSVP Form

YES, I will be attending Fall Festival '02!

Name: _____
Class Year: _____ Institution: _____
Guest Name: _____
Class Year: _____ Institution: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____

I/we will be attending the following events:

Friday, October 4th	Price	# Attendees	Cost
Golden Alumni Luncheon	\$15	x _____	_____
Francis College of Engineering Alumni Open House	comp	x _____	_____
Graduate School of Education Alumni Open House	comp	x _____	_____
25th Reunion Dinner (1977)	\$35	x _____	_____
40th Reunion Dinner (1962)	\$35	x _____	_____
50th Reunion Dinner (1952)	\$35	x _____	_____
Saturday, October 5th			
Canal Tour	\$5	x _____	_____
Family Day	Comp	x _____	_____
Homecoming/Reunion Luncheon	\$10	x _____	_____
Football UML vs. Bentley College	\$3	x _____	_____
Prof. Bergeron's Festivities	\$15	x _____	_____
Francis Cabot Lowell Dinner	\$35	x _____	_____

Total Payment Enclosed: \$ _____

Please make checks payable to UMass Lowell.
Payment may also be made by credit card:

MC/Visa# _____
Exp. Date _____
Signature _____

Please return this form no later than September 27th to: UMass Lowell, Office of Alumni Relations, Wannalancit Mills Complex, 600 Suffolk Street, Lowell MA 01854-3629 or fax to (978) 934-3111. If you have any questions about any aspect of the Fall Festival Weekend, please call the Alumni Office at (978) 934-3140 or (877) UML-ALUM or e-mail us at Alumni_Office@uml.edu. Check out our Web site: www.uml.edu/Alumni.

Fall festival 2002 October 4-5

Mark Your Calendar - October 4-5, 2002

Investing in the Future, Staying Faithful to the Past

By Geoffrey Douglas

On the fourth floor of Wannalancit, five young companies, under the broad wing and watchful guidance of the University, carry with them the hopes of the region—and the legacies of an earlier time.



“Everything you see in here started with a piece of paper.” Marty Anenberg sweeps his left arm broadly, right to left, to take in the full expanse of the scene that begins just outside his door: 7,500 square feet of pine-floored office space, most of the fourth floor of the Wannalancit Mill, broken along its walls by large, pre-molded cubicles—inside each one a fledgling company.

The companies, five of them at the moment, are in the earliest stages of life: small, high-tech start-ups that began with little more than energy, a true believer or two and a very good idea. From the idea came, in each case, the “piece of paper” that was its business plan; and from this—if it was among the chosen ones—the money, workspace and mentorship of the Commercial Venture Development (CVD) arm of the Research Foundation of the University of Massachusetts Lowell.

Kathryn Catalono of Konarka Technologies with a poster displaying the young company's logo and promotional scenes.



At a recent gathering on the fourth floor of the Wannalancit Mill—the workspace of the start-up companies mentored and seeded by UMass Lowell's Commercial Venture Development arm—entrepreneur-in-residence Marty Anenberg, far right, met with some of the companies' principals. Seated, at left, is Tom Tanin of Excelcion, Inc., while next to him is Michael George of eSkill. Standing, from left, are Azim Hashimi, a UMass Lowell MBA student; Roger Winsby of BizownerHQ; and Kathryn Catalono of Konarka Technologies.



Excelcion employees, from left, Gary Miliefsky, Rick Knowles, Tom Tanin and Derek Lofstrom, are guiding their company through its infancy in the field of network security.

Along one wall is Konarka Technologies, a start-up that took life from the idea of a professor—Dr. Sukant Tripathy—in the UMass Lowell polymer engineering lab: to create energy from solar light. Konarka, whose success could bring power to remote rural locales (such as many in Dr. Tripathy's native India) that would likely never see a utility line, was founded just months after Dr. Tripathy's tragic unexpected death and remains grounded in the vision he had. “He understood the impact of a single light bulb in the homes of those who have never had electric power,” Konarka President Paul Wormser said at the company's christening last year. “Quite simply, he hoped to change the world.”

Among Konarka's neighbors on Wannalancit's fourth floor are four other young companies, each one also the product of a vision for progress or change: AIRxpert Systems, whose specialty is the

monitoring of ventilation in large buildings; eSkill, an online testing firm that matches the technical skills of prospective employees to the employment needs of high-tech firms; BizownerHQ, a provider of real-time, online database assessments that simplify the process of valuing a company's worth; and Excelcion, founded by UMass Lowell computer science graduate Gary Miliefsky, a front-line developer of the next generation of network security for banks, governments and on-line brokerage firms.

All five of these firms—as well as 12 more that have passed through CVD's incubation process over the past five years—are small technology start-ups with a need for seed money, a UMass Lowell connection (through the use of faculty, students or both) and a well-conceived business plan.

“They come to us with an idea—it's usually a good one—and a request for funding. We read their plan. Then the questions begin.”

Marty Anenberg is 33, a former sales and marketing specialist for Coca-Cola with a BA in history. His UMass Lowell business card lists him as CVD's “Entrepreneur-in-Residence,” a job he came to nearly two years ago, from his own company, Cynaptec—which, three years before that, was the first to benefit from the University's new venture-capital arm. So, having been on both sides of the table, he has a veteran's sense of the critical questions to ask:

“How do you see your company?” “Who are your customers?” “Have you spoken with them?” “Do you have any advance orders?” “How

would you feel about not being the CEO?”

“That last one is a key question. The best person to run a company isn't necessarily the one who came up with the idea—there's a whole different set of skills between an entrepreneur and a CEO. We need to know if they're realistic about that.”

A company approved for funding (and far fewer than 10 percent of CVD's applicants will ultimately get funds) will typically receive a modest capital infusion—always less than \$100,000—from the University, in

exchange for equity in the firm. In addition, Anenberg and the Research Foundation will play a role in helping secure future venture capital, as needed—though the amounts involved here are nearly always many times greater

than the University's own invested funds. (Since CVD first set up shop four years ago, more than \$60 million in venture funding has been brought in to seed the 17 companies so far invited to the mill.) This, of course, will dilute the University's equity position—a dilution, says Marty Anenberg, that is very much by design:

“We know we're going to wind up with a smaller piece of the pie. But that's part of the point. We'd much rather have two percent of a \$50-million company than 10 percent of a \$2-million one. That's the whole idea of seed money—we want these firms to grow.”

The logic here would seem unassailable. Apparently though, according to Excelcion founder Gary Miliefsky, (recipient of the 2000 Francis Cabot Lowell Young Alumni Award), it's only one of several venture-capital styles. Other

“You invest in a company, then it invests in the students.”
— Marty Anenberg

start-up investors he's known, he told a reporter last year, take as much as half-interest in a company, in addition to fees and stock options, as a price of their investment. The result amounts to a disincentive to the company's principals: "When all is said and done, you don't own the company, and you don't have a prayer of getting [more] funding."

The UMass Lowell approach, Miliefsky says—a smaller equity position, with more hands-on assistance and intellectual support—is "better and cleaner...a model of what an incubator should be."

Of the five or six companies likely to be in residence in Wannalancit at any one time, a few will remain as briefly as three or four months—their need for growth, by then, will exceed what the mill can provide. None will stay longer than a year and a half. Again, says Anenberg, this is all part of the point:

"But in the end, it's really about the future—about the return, down the road, to the University. And that'll come soon enough. It will."

— Marty Anenberg

"It's a weaning process. We're looking for these companies to grow, flourish, then to make it on their own. We expect them to leave here. We hope they'll stay in the region—a big part of the idea is to boost the local economy—although we can't force them to stay around. But by the end of 18 months or so, it'll be time for them to leave the mill. By then, you can usually know if a company's going to make it or not."

(Of the 17 companies funded since mid-1998, says Anenberg—including his own, which was the first—"probably 13 or 14 are still around, and most of those are doing well.

There are two, maybe three, that could make it really big.")

So while some of the start-ups need more money than others, and some require more support or more time, there is one hard-and-fast condition that doesn't allow for wiggle-room: any company receiving CVD funding *must* employ the services of UMass Lowell students or faculty—ideally both.

Konarka was the brainchild of Prof. Tripathy; the test questions developed by eSkill were validated by students, then overseen by Computer Science Prof. Jim Canning; at BizownerHQ, at least two finance students gathered industry data, while two more from computer science prepared the Web site for launch; at Excelsion, at last count,

two graduates and six undergrads were at work with Gary Miliefsky on the company's technology.

"You invest in a company, then it invests in the students," Marty Anenberg says. "We've seen computer science students, graphic arts students, even some English majors over

here. They're learning the business, they're meeting entrepreneurs. Then they go out and become part of the bigger company. The whole process feeds on itself."

"By hiring our students, the companies benefit and the students gain an unparalleled educational experience," says Research Foundation Director Lou Petrovic, the final arbiter of CVD's decisions and funds. "This is a major strength of



UMass Lowell Research Foundation Director Lou Petrovic, left, together with Louise Griffin, center, associate director of external funding, technology, transfer and partnering, and Entrepreneur-in-Residence Marty Anenberg.

the UMass Lowell program."

Another strength is its value to the region. UMass Lowell Chancellor William T. Hogan, a strong proponent of the University's leadership role in the community, is reminded, he says, of the original mission of the Lowell Textile School when it was first chartered by the Commonwealth 107 years ago:

"It was started by the mill owners, to produce talented weavers and middle-management workers. It was built on a relationship between textiles and academics; the idea was to create better prices, to revive the industry."

This was the start, the Chancellor says, of two separate but complementary legacies: "our long tradition of dealing with materials, and our willingness to truly partner with the community." Both of these, he says, are alive and well-served in the twin efforts of the University, through its

venture capital arm: to foster partnerships with regional firms and to advance technology.

Still, at the root of it all, says the Chancellor, is the importance of an education that continues after the classwork is done:

"This is a path for the students to gain real-world opportunity; to have on this campus a flow of real problems, real start-up experiences, to be exposed to that process [in the flesh]. And that, for the student, is just invaluable."

Marty Anenberg, four years ago, was a 29-year-old former junior executive, fresh out of Coca-Cola, with a new young company—

Cynaptec—and a dream. He and a partner spent four months together, alone, on the fourth floor of the Wannalancit Mill, in the boom days of the Internet start-ups, trying to make a small, on-line procurement company with \$5 million in venture capital—and another \$80 thousand from UMass Lowell—stay abreast of the competition, and of investors' hopes. In the end, it didn't quite happen—though if it had, he wouldn't know what he knows today about tending to dreams:

"It's great to see this now," he says, as he sweeps his arm and looks around. "Five great young companies, all the promise they have, all that energy. To just stand here now and remember—to look at all this,

and then look back, remember back, to how it began. It gives me a lot of empathy, I think..."

"But in the end, it's really about the future—about the return, down the road, to the University. And that'll come soon enough. It will. The pay-off right now is in the students and faculty, and in the economy here..."

"It's a pretty great investment all around."

UMass Lowell Choral Offerings

Dr. Christopher McGahan, Coordinator of Choral Activities

www.umlchoral.com



The UMass Lowell Choral Program has concentrated on carrying its musical message beyond the boundaries of the Lowell campus. The CDs, all recorded in performance, are representative of the geographic and artistic reach of the program. Under the leadership of Dr. McGahan, the choirs have appeared in concert with Dave Brubeck, Sarah Brightman, and Kenny Rogers.

Enjoy these offerings from the Music Department at UMass Lowell.

All contributions (less the value of benefits received) are tax deductible.

Join us at our annual Christmas Concert on December 8. See www.umlchoral.com for details.



Elijah by Felix Mendelssohn
Compact Disc
COMBINED CHOIRS
Recorded live March 3, 2002
St. Irene Church, Carlisle, Mass.

Donation of \$25 or more
Item CA 251



Messiah by G. F. Handel
Compact Disc
COMBINED CHOIRS
Recorded live December 12, 2001
Gate of Heaven Church, Boston, Mass.

Donation of \$25 or more
Item CA 252



Requiem by Duruflé, other works
Compact Disc
COMBINED CHOIRS
Recorded live May 5, 2002
Methuen Memorial Music Hall

Donation of \$25 or more
Item CA 253



Methuen Memorial Music Hall
Photograph and Poster
COMBINED CHOIRS IN PERFORMANCE
Suitable for Framing

8 x 10 Photo Donation of \$15 or more
16 x 20 Poster Donation of \$25 or more
Item CA 254

Graduates Urged to



Under a banner at the Tsongas Arena, the faculty assembles for the presentation of degrees to the class of 2002.

Senior Class President Colleen Brady set the tone for the University's eleventh commencement ceremony on June 2 as she quoted President John F. Kennedy's 1961 inaugural address. Suggesting the parallel circumstances for Kennedy's "new generation" and the generation of the Class of 2002, Brady encouraged her classmates to make a difference in the world through the choices ahead of them.



Senior Class President Colleen Brady

Make a Difference

Commencement speaker Dr. Arthur Levine, president of Teachers College, Columbia University, continued the theme as he told graduates that "making a difference is your birthright." Levine's surveys of graduating students showed this to be a generally optimistic group, he said, in spite of world events in the last year.

"Making a difference is your birthright."

— Dr. Arthur Levine

Saying he knew they understood that they would have to solve problems created by previous generations, Levine wished them three things: hope, "so you can get through every day and keep your dreams alive"; responsibility, which would help them both "do well and do good"; and a sense of efficacy, so "you know what you do matters."



Under the graduation tent, speaker and honorary degree recipient Arthur Levine is joined by, from left, Jacqueline Moloney, dean of Continuing Studies and Corporate Education; Daphne Layton, associate vice president for academic affairs; and Kate Harrington, senior associate for academic affairs.

At the commencement ceremony, attended by a standing-room-only crowd at the Tsongas Arena, more than 1,500 bachelor's, master's, and doctoral degrees were awarded. They included the first three degrees earned in an all-on-line program: a bachelor's in information technology, and the first Ph.D. in chemistry in a program jointly supported by the Lowell and Dartmouth campuses.

The valedictorian for the class of 2002, Harmander S. Gill, a biology major, was also awarded the Trustees' Key. Gill is the eleventh recipient of the award, which was authorized in the mid-1970s to recognize students who earned a perfect 4.0 grade point average in their eight semesters here. Gill received a standing ovation from his classmates.

Honorary degrees were presented to Dr. Levine, Joseph C. Day '66, president and CEO of Freudenberg-NOK; Laurie Garrett, an award-winning science journalist and author; and Gordon B. Lankton, president of Nypro, Inc.

The Distinguished Alumni Award, which acknowledges professional and public service contributions by University alumni, was given to a couple: Jacqueline and Charles Puliafico. Mrs. Puliafico's 20-year teaching career in Webster was recognized recently when the town named the auditorium of the high school in her honor. Mr. Puliafico, a 1944 graduate in textile chemistry from Lowell Textile Institute, is founder and former president of Dudley-based Webco Chemical Corp., a manufacturer of specialty chemicals.



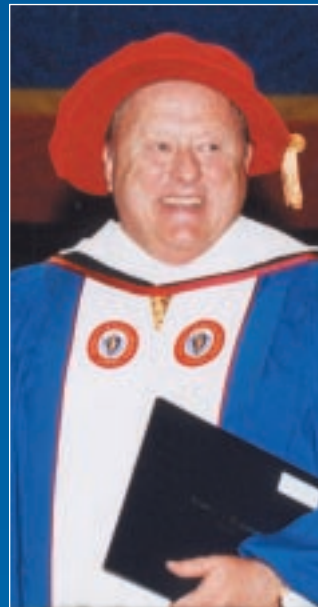
Chancellor William T. Hogan pays tribute to the graduating class of 2002.



Chancellor William T. Hogan congratulates honorary degree recipient Joseph Day '66, center, as Ken Lemanski, special assistant to the provost, presents Levine's academic hood.



Arthur Levine, president and professor of education at the Columbia University Teachers College, addresses the commencement audience. Levine received an honorary degree.



Lowell native Joseph Day '66 collects his honorary degree from Chancellor William T. Hogan. Day is chairman and CEO of the automotive supply firm Freudenberg-NOK, and a member of the College of Engineering Board of Advisors.



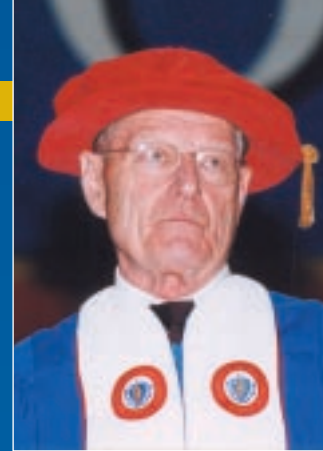
State Rep. Thomas A. Golden '94 greets the class of 2002. Golden also received his MBA at the 2002 commencement.



Harmander S. Gill is honored by the trustees as valedictorian of the class of 2002.



James DiPaola, sheriff of Middlesex County, who traditionally calls the commencement ceremony to order, joins Lowell Mayor Rita Mercier after the commencement ceremony.



Gordon Lankton, president and chairman of the board of Nypro, received an honorary degree. Nypro is a plastics injection molding and contract manufacturing company in Clinton.



Journalist and author Laurie Garrett received an honorary degree. Garrett has written two books on global health issues, and has won the Pulitzer prize for her science reporting.



Steve Tello, left, associate director of Distance Learning, received a doctorate in education, presented by the dean of the Graduate School of Education, Don Pierson.



Harmander S. Gill receives the Trustees' Key from board member Dr. Michael Foley. The key is given to UMass Lowell students who graduate with an overall grade point average of 4.0.



Class of 2002 president Colleen Brady addresses her fellow graduates.



Members of The class of 2002 listen to a speaker in their final moments as undergraduates.



New graduates take a bow in the joyous bustle inside the Tsongas Center.



Joseph Day, an honorary degree recipient, with his wife, Diane, and grandchildren Cooper and Meredith, and their UMass Lowell teddy bears.



Plastics engineering faculty gather by the riverside with John Quinn '69, second from left, Gordon Lankton, center, dark tie, and Joseph Day, center, yellow tie. Prof. Stephen McCarthy stands at left, Prof. Stephen Orroth at right, and department Chair Nick Schott, second from right.



Charles '44 and Jacqueline Puliafico '42 are honored as the University's distinguished alumni, with awards presented by Susan Pasquale, chair of the Alumni Relations Council and Matthew Donahue, chair of the UMass Lowell Foundation Board.



Chancellor William T. Hogan presents the Chancellor's Medals to Lisa Chandonnet, for the highest grade point average in the College of Arts and Sciences Division of Fine Arts, Humanities and Social Sciences, and Aron Bellorardo, for highest grade point average in the College of Engineering.

Alumni Events



1. Pictured at the home of alumni Jackie and Charlie Puliafico in Palm Beach, FLA. for an alumni gathering are, from left, Martin Schedlbauer '88, '91; Diane Earl, director of alumni relations; Jackie and Charlie Puliafico, and Mary Jo Leahy '37.

2. Lowell Textile graduates in Palm Beach are from left to right: Sy Gottlieb '49, Tom Garvey '54, '55 and Marvin Aronowitz '51, '52.

3. Young alumni got together for the first YAC Networking Night at Cobblestones Restaurant in Lowell on March 28th.

4. Alumni enjoyed a pre-show reception hosted by the Alumni Relations Council in April with special guest appearance by Gerald Dickens prior to attending his world premier performance of "The Republic of My Imagination". Left to right: Martha Mayo '92, Florence Gallagher '58, Florence Lacouture '59 (ARC), Michele Lafleur '90 (ARC), Leslie Morin '82, '92 and Donna Coffey '68 (ARC).

5. Alumni Relations Council member Garrett Thurston '90, '95 and wife Lisa '96, '97 greet Nancy and David Hopwood '63 at the Dickens reception in Durgin Hall.

6. UMass Day was celebrated across the Commonwealth on April 27th. Shown here at the Chelmsford Library are Pamela Jahngen-Provencal and Doug Prime '88, '91 promoting UML's summer Designcamp for school-aged children.

7. New York area alumni enjoyed dinner with producers Stewart Lane and Bonnie Comley '81 prior to attending their Tony winning performance- *Thoroughly Modern Millie*. Seated from left, Elizabeth Morin, Rudy Morin '59, Phyllis Adler and Ed Adler '53, '55. Standing, from left, Mimi Kassel '52, Mike Sisselman, and Bonnie Comley '81.

8. New York area alumni reminiscing about their days in Lowell included from left, Gene Buczynski '71, Colleen Buczynski, David Pernick '41, Frances Pernick, Karen Farrell and Thomas Farrell III '73.

9. Krishna Vedula, Dean of the Francis College of Engineering (center) congratulates the 2002 Engineering Alumni Award Recipients. They are, from left, Bill Hellmuth '77; Rick Pierro '83; Joe Flannery '53; Don Leach, faculty; Dean Vedula; Bill Flood, Professor Emeritus; Zelman Kamien, Professor Emeritus and former Chairman Mechanical Engineering; and Rick Hess, President M/A-Com Inc.

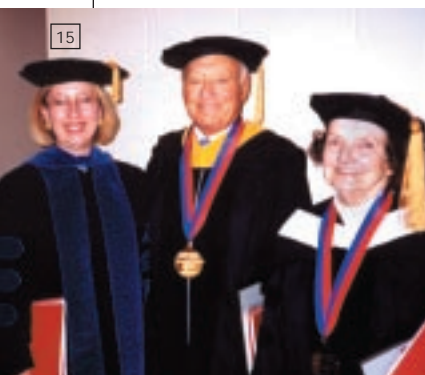
10. Hank Powell '55, Ralph Mondano and Joe Barbagallo '66 attended the 6th Annual Engineering Alumni Awards Dinner at the Radisson Hotel in Chelmsford on May 2nd.

11. Congratulating the 2002 Biology Alumni Awards recipients are, from left, Bob Coleman, Professor Emeritus, Dean of Sciences Bob Tamarin, award recipients Lynda Fawcett '86, '87 and Paul Fawcett '77, '82, '86 and Bob Lynch, faculty and department Chair.

12. Presented with the Conlon-Drauch Family Scholarship at this year's Graduate School of Education Awards ceremony, Mary R. Coughlin is joined by, from left, Dean Donald Pierson, Dr. Mary McGauvran '39 and John Conlon, presenter.

13. Pictured at the Graduate School of Education Annual Awards Day on May 4th is the Education Committee for the Millenia. Seated, from left, are Dean Donald Pierson, Mary Kiernan '29, Mary Labay '39, and Dr. Mary McGauvran '39. Standing, from left, are Florence Lacouture '59, Mildred Scanlon '36, Vasiliki Selvaggio '53 and Vito Selvaggio '52.

14. Winners of the President's Division at this year's River Hawk Golf Tourney are, from left, Martin Schedlbauer '88, '91, Matthew Eynon, UML interim executive director of advancement, Bill Penney '75 and Ken Gys '87.



15. Honored at this year's Commencement ceremony with the Distinguished Alumni Award are Jacqueline Puliafico '42 and Charles Puliafico '44, pictured here with Alumni Relations Council Chair Dr. Susan Pasquale '75, left.

16. Radiological Sciences alumni gathered for a group photo at the 4th annual HPS/RAD Science alumni luncheon in Tampa, Florida.

17. Members of the Classes of 1992 and 1997 braved stormy weather conditions and enjoyed an evening of reminiscing and dancing to favorite college tunes on Boston Harbor, June 15th.

18. On a cruise of Boston Harbor to re-unite for their 10th year college reunion are members of the class of 1992 and guests. From left are Matthew Lappier, Michael Smith, Don Breault, Michelle Lapierre Smith, Shelley Conley and Richard Conley.

Do We Ring A Bell?

If not, we should. You may not recognize our faces, but our names and voices are sure to ring a bell. We are the students of the UMass Lowell phonathon who telephoned you last year during our record breaking 2002 Lowell Fund campaign. Guess what? Starting soon you'll be hearing from us again. We are eagerly anticipating the start of our 2003 phonathon campaign this fall.

Thanks to your generous contributions last year, Lowell Fund support reached record levels once again and enabled us to fund more student programs than ever before! We hope you will be as supportive as you can be again this year!

THANK YOU to the more than 7,400 alumni who made last year a smashing success!! Our program has grown significantly over the last six years and this growth would not have been possible without YOU!



Growth from 1997 to 2002: 313.82%!

If you were a part of our success, THANK YOU!!

Our 2003 Goal: \$700,000

Please help us reach this goal by supporting our worthy cause!

If you have any questions about the University or The Lowell Fund, please ask our phonathon callers or contact Brian W. Andriolo, '95, '97, Director of The Lowell Fund, by phone at (978) 934-4809 or e-mail at Brian_Andriolo@uml.edu.

Here are the numbers:
Six-Year Phonathon Pledge Growth:
1997: \$145,285
1998: \$278,069
1999: \$428,830
2000: \$476,123
2001: \$530,774
2002: \$601,225

IN MEMORIAM

Paul E. Carr, Sr. '24
Agnes (McElhinney) Cassidy '26
Dorothy (Ward) Mann '26
Mary (Caires) Dowley '27
Dr. Miriam (Shrager) Pollock '28
Anna (Wynn) Archibald '29
Harriet (Perron) Ryder '29
Lyra E. Grammer '32
Ruth (Kingsbury) Locke '34
Josephine A. Enright '35
Edith (Grise) Favarato '35
Evelyn (Durgin) Rich '36
Mary G. Cronin '37
Edward J. Klosowicz '38
Virginia (Roarke) Greene '41
Paul F. Noonan '42
Roger C. Griffin, Jr. '43
Barbara (Regan) Mattingly '43
Shirley E. Nowell '43
Marie (Finnegan) Jones '45
Catherine (Delaney) Harper '47
Jean (Roessler) Frieswick '50
Richard M. King '50
Gilbert J. Favro '51
Gaston C. Majeune '52
Mary (Coughlin) White '53
Edwin J. Mason '59
Leo A. Parent '59
Joseph V. Petrone '59
George A. Wilkins '62
Howard R. Bailey '64
Nicholas G. Georgakakos '66
George S. Retalis '69
Robert A. Hatch '73
Diana (Leigh) Hodge '73
John J. Collins, Jr. '74
Bruce M. Jansen '74
William G. Weir '74
Russell L. Lacroix '76
Tana A. Martyn '76
Frederick L. Robbins, Jr. '76
Joseph R. Sasso '76
Horace R. Trovato '76
Vincent J. Giliberto '82

Frank V. Zola '84
Andrew C. Coppola '86
Alear (Innis) Mahoney '86
Pamela (Hayes) Sorrentino '91

Faculty, Staff and Friends
Arthur M. Friedman, Faculty
Beverly R. Geyer, Parent
Charles E. Harrison, Jr., Friend
Richard W. Ivers, Staff
Miriam Price, Staff
Edward L. Reeney, Staff
Margaret W. Sawyer, Friend

Arthur Friedman, Retired English Professor, Dies at 66

Prof. Arthur Friedman, a noted theater critic and member of the University's English faculty from 1966 to 1996, died in Boston on Feb. 18 following a long illness. He was 66.

A native of New York City and a graduate of City College, Prof. Friedman earned a master's degree in English from Boston University and completed all course requirements and orals for a doctorate at Harvard University.

During the 1960s, he acted in numerous Harvard productions at the Loeb Drama Center and Agassiz Theater, working with Stockard Channing, Tommy Lee Jones and James Woods, among others.

At the same time, he began writing theater reviews for a number of publications in the Boston area and, in 1982, was engaged by the *Boston Herald* as a successor to Elliot Norton. He was twice named Best Theater Critic by *Boston* magazine.

WHAT'S NEWS ABOUT YOU?

1937

Betty Stowell Keller enjoyed the UMass reception for the president of the University of Hawaii, **Evan Dobbelle**. President Dobbelle is a 1963 graduate of the Amherst campus.



1953

Don E. Finegold has retired after 50 years in the leather industry, and has written a mystery novel entitled *Interlude*, which was published this summer.

1964

Dr. George Perrone, director of Fine Arts for Framingham schools, recently returned from a trip to Russia where he conducts concerts and lectures on the development of jazz in America as part of the "sister city" program between Framingham and St. Petersburg. The program also includes taking medical supplies and clothing to orphanages and bringing students from Russia to study in America.



1965

Priscilla McLean and her husband, Barton, known collectively as the McLean Mix Duo, will undertake a series of residencies and tours at Rensselaer Polytechnic Institute (where they have been Artists-in-Residence), Rocky Mountain National Park and the Electroshok First Electroacoustic Festival in St. Petersburg, Russia. This spring they premiered their latest audio/video work *Autumn Requiem*.

1968

David Johnson has been named director of the Middle Market Advisory Services practice at PricewaterhouseCoopers LLP, serving Connecticut and western Massachusetts. He has relocated from South Carolina.



1973

James Kozik has been promoted to the Atlanta Regional office of the U.S. Forest Service where he is in charge of coordinating Transportation Operations on the 15 National Forests that make up the USFS Southern Region. Jim makes his home north of metro Atlanta.

1974

Louise Hart, author of more than 30 books, has an exclusive interview, "Falling Leaves," published in the February 2002 premier issue of the online culture magazine, *Eclectic*.

Lew Karabatsos, director of Compaq's Corporate Community Relations, received the first Innovation in Corporate Citizenship Award from Boston College. This award is given to individuals who exhibit true strategic

WHAT'S NEWS ABOUT YOU?

leadership in the service of corporate citizenship. As senior manager of Corporate Community Relations, he is responsible for working with senior and site management teams across the country and abroad to develop and implement strategic community relations programs and initiatives, including corporate-sponsored community and employee programs.

1985

Eric Peterson writes that he has "moved to the country where my new hobby is chasing away the bears!" He lives in Strasburg, Va., and is a senior software engineer for SingleSignOn.Net.

1987

Chris (Arangio) Vasiliadis has started up her own make-up consulting business, Signature Faces, Inc. Chris teaches clients how to properly apply makeup in their homes. Her SignatureFaces.com Web site was designed by her friend and class of '86 alumna, Gertrude Wallis.

Thomas A. Wilson and his wife, Victoria, welcomed a baby girl, Alyssa Jordan, last December.

1990

Erik A. Day was named Seires-Blue Jacket Sailor of the Year and awarded the Navy and Marine Corps Achievement Medal in ceremonies held recently at Brunswick Naval Air Station. These awards are given for professional achievement in the superior performance of one's duties. Erik lives in Methuen with his wife, Michelle.



1992

Krista (Curran) Bracci and her husband, Scott, welcomed their first child, Hayley Nicole, on April 3.

Brian Donovan has been named an associate with the Boston law firm of Bromberg & Sunstein LLP, where he concentrates on litigation and trademark prosecution with a significant focus on intellectual property litigation at both the trial and appellate levels. Brian began as a paralegal and law clerk with the firm while still a student at Suffolk University Law School, and has been there ever since.

Peter Furlong's "strong singing" was noted by critics in his role as the tenor lead in Kurt Weill's *Street Scene*, at the Decapo Opera in New York

Mary Beth McKenney-Donnelly was recently married to Sean Donnelly and is the head coach of the girls' cross-country and spring track at Lowell High School. Mary Beth also is a full-time Clinical Leader in the Critical Care Unit at Emerson Hospital where she works the graveyard shift, thus enabling her to coach.

1993

Renee DeFeo received her master's in business administration in technology management from the University of Phoenix in April. Renee is a material engineer at Intel.

1994

John Cafarella III and **Elizabeth Darrah** were married in October 2001 and honeymooned in Hawaii. They recently bought a house in Maynard. John writes that he enjoys attending UMass Lowell hockey games.



Roy Zuckerman, '58, receives the 2002 President's Medal from by UMass President William M. Bulger, center right. Zuckerman's wife, Barbara, is at left; Boston Pops conductor Keith Lockhart is at right.

Roy Zuckerman Awarded 2002 President's Medal

Roy J. Zuckerman '58 is the recipient of the 2002 President's Medal, awarded to individuals who have pursued excellence and whose achievements are a reflection of the high ideals and traditions of the University of Massachusetts.

Zuckerman is a senior director of The Goldman Sachs Group, Inc., a position he assumed after stepping down as vice chairman of the firm, a member of the Executive Committee, and head of the Equities Division in 1998. He joined the firm in 1967 in Securities Sales and, in 1972, assumed responsibility for developing the private client business. He was made a partner in 1977 and served as co-head and then head of the Securities Sales Division.

For a number of years, Zuckerman has contributed financial resources, time and effort to the University. He has endowed a system-wide chair in leadership, and provided major support to the assistive technology program at UMass Lowell. He also serves as chair of the University of Massachusetts Foundation Investment Committee.

Zuckerman also is past chairman of the Securities Industry Association and served as a member of the Senior Advisors Group to the President's Council on Year 2000 Conversion. He is chairman and member of the Executive Committee of North Shore-Long Island Jewish Health System, Inc., a trustee of the American Red Cross in Greater New York, director of the Brookdale Foundation, Mack-Cali Realty Corporation, and a member of the board of governors of the Weizmann Institute of Science. He has long been involved with the UJA Federation and served as chair of the Wall Street Division.

1996

Kim (Ward) Johnson was married in September 2001 on a riverboat on the Mississippi. She is now living in "up north" Minnesota, enjoying the lakes and deer, with her husband and 4-year-old son. Kim is a supervisor of a clinic lab.

1998

Jonathan August volunteered at the Maccabiah Games in Israel in June 2001 as an athletic trainer with the men's basketball team. They won the Gold Medal. Jonathan graduated from the Institute for Integrative Nutrition in New York and is now a certified holistic health counselor. He is also certified to lead

introductions to the Landmark Forum for the Landmark Education Corporation.

1999

Stacie Coburn received her master's in education from Rivier College in May. She is a special education reading teacher in the Manchester, N.H., School District.

Harish Hande, president of operations in India, Vietnam and Sri Lanka, accepted a company award for Corporate Excellence from the U.S. State Department for SELCO-Vietnam, a subsidiary of Solar Electric Light Company. The award was given for SELCO's work in reducing poverty and spurring economic development

in Vietnam's countryside by supplying household electricity to families who lack access to a power grid. SELCO also works with local women's groups to secure low interest loans and repayment schedules geared to crop cycles, among other programs.

Kristin J. Lamond is a recent graduate of the Reading Municipal Police Officers class and is now a UMass Lowell police officer.

2000

Jason Bellorado earned his master's in electrical engineering from Harvard with a concentration in telecommunications. He also received a fellowship at

Harvard to pursue his doctorate in the same field.

We apologize sincerely to **Dean Grimaldi '77** and his family for reporting him deceased in the last issue of the magazine. Dean is alive and well and resides in Hampton, N.H.



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Sports Roundup

Top Ten Champions in Women's Sports Named at Banquet

Athletes from five different women's sports were honored as Top Ten Champions during this year's annual Excellence Banquet.

The 10 were Diana Diaz and Erica Towlson, track and field; Susan Gehm Sandanato, softball; Sheila Knower, Darlene Orlando Ciarcia and Rosalyn Worsley, basketball; Shannon LeBlanc Hlebichuk, field hockey; and Sue MacDonald Tidd, Michelle Roy and Katie Toomey, volleyball.

Diaz (1993-95), a 2000 UMass Lowell Hall of Fame inductee, earned All-America status in 1995 and set the 400 meter outdoor record.

Sandanato (1981-84) was the first female athlete voted into the Athletic Hall of Fame as a stand-out in field hockey and softball. She also won the Lester H. Cushing Award as the outstanding female athlete.

Knower (1994-98), who ranks second all-time in scoring with 1,565 points, was named player of the year in both the New England Collegiate Conference (NECC) and the Eastern College Athletic Conference (ECAC).

Hlebichuk (1994-97), considered the best player in the history of the field hockey program, was named an All-American and Academic All-American in 1995 and 1997.

Tidd (1985-88) ranks among the top five in nine different statistical categories in volleyball, including the best career hitting percentage of .294. She returned to coach at the University.

Ciarcia (1990-1994) is the most decorated women's basketball player in UMass Lowell history, topping the charts in a number of categories, including most career

points (2,116). She was Player of the Year in the NECC and a first team All-American and Academic All-American.

Roy (1988-91) ranks atop six of the University's career leader charts and is second among school leaders for most service aces in a season (88 in 1990). She also later coached at the University.

Toomey (1996-99) was selected for the New England All-Regional Team in her final three years and was named to the NECC All-Conference first team all four years. She also was Player of the Year in the conference her last two seasons.

Towlson (1995-98), an NCAA All-American, holds many indoor school records and the top four times in the 100 meter hurdles and the top 10 in the 50 meter hurdles. She also was a Cushing Award recipient.

Worsley (1987-91) made the University's top 20 single season scoring list three times with totals of 3542, 473 and 544, and recorded 199 steals on defense, second best in school history.

New Club Adds 'Emotional Component' to Support of Athletics

Mike Vitale of Lowell, a 1975 graduate of Lowell Tech, has been a season ticket holder of the hockey program for 27 years. "I think it's important to support the kids and the program, and I enjoy the events," he says. Chris Prince of Andover, who played varsity basketball for ULowell in the late 70s, also stays in touch. "I still go to some games. I like to stay involved and help support the team," he says.

Vitale and Prince both are among those who have been members of the Lowell Club, which became the River Hawk Club earlier this year. The Club is the premier organization for providing direct support to all men and women's athletic programs.

"The Lowell Club has served us for some time as a fund-raising vehicle," says Athletics Director Dana Skinner. "Now, with the River Hawk Club, we want to expand on that concept and add an emotional component with social activities conducted around the sports experience here at the University.

"Our goal is to expand the club to 500 members within the next three years. We need this kind of support to generate the revenue and the kind of following we need to remain competitive in some of the best athletic conferences in the country," he says.

Annual membership, which runs from Sept. 1 through Aug. 31, is

open to all for a minimum donation of \$50. Members enjoy a number of special benefits, and there are social events throughout the year.

One special benefit, available to members at the \$250 level, is access to the Talon Club Room in Tsongas Arena. And, those at the \$1,000 level are enrolled for a year in the fitness center in the University's new Campus Center.

For more information on joining the club, contact Leslie Sanderson in the Advancement office at (978) 934-4803, Leslie_Sanderson@uml.edu, or visit goriverhawks.com.

Six Teams and 22 Individuals Honored for Academic/Athletic Records

Twenty-two student-athletes and six teams were the recipients of five major awards bestowed during the 2001-2002 Excellence Banquet held in Costello Gym in May.

The Lester H. Cushing Award, presented to the outstanding male and female athlete, went to Jill Croft of the track and field program and to Mike Paige of the men's soccer team and the track and field squad.

The Bob Griffin Academic Cup, awarded to teams that achieve the highest overall grade point average, went to the men's basketball, crew and cross-country teams, and to the women's basketball, tennis and volleyball teams.

The David J. Boutin Award and the Laurie A. Mann Award each go to the individual who most effectively balances the demands of academics and athletics, and who serves as an inspiration to other student-athletes. The winners were Eyal Leib of men's basketball and Nicole LeBlanc of field hockey.

The Student Athlete Award is presented to the person on each team who best demonstrates the proper balance of academics and athletics. The winners were Mike Regan (baseball); Eyal Leib and Meghan Hamilton (basketball); Sean Dubois and Amy Silveira (crew); Carl Mease and Tanya Latraverse (cross-country); Bob Montgomery (football); Nicole LeBlanc (field hockey); Laurent Meunier (hockey); Mike Paige and Meghan Leary (soccer); Becky Regula (softball); Jonathan Lilley and Emily Athas (tennis); Kevin Alliette and Jill Croft (track and field); and Stacey Graf (volleyball).

River Hawks Once Again Compete in College World Series

This year, for the second consecutive season, the UMass Lowell baseball team went to the NCAA Division II College World Series in Montgomery, Ala. And, once there, the River Hawks became the first team from the Northeast region since 1989 to advance to the semi-finals.

Entering the series ranked 16th nationally, they lost their opener, 5-2, to Cal State-Chico, the top rated team in the country.

Then, knowing they would be out of the series if they lost again in this double-elimination event, they bounced back to beat South Region champion Florida Southern, 7-2.

Dave Williamson, a senior from Manchester, N.H., pitched his seventh complete game of the year, scattering six hits and striking out nine.

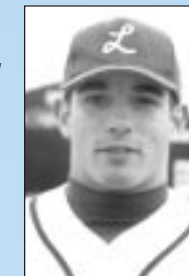
The River Hawks followed this up with a 10-5 win over North Central Region champion Ashland behind the pitching of junior Patrick Shirley and the 3-for-4 hitting of outfielder Nate Liebenow and first baseman Mike Regan.

The ride ended in the semi-finals when the team from Lowell lost for the second time to Cal State - Chico, which remained undefeated until it eventually lost the final game of the series.

It wasn't easy getting to Montgomery in the first place. As is often the case, the River Hawks started slowly and by early April had a record of 11-11. They took 14 of their next 18 regular season games, however, and subsequently won the Northeast 10 championship and the NCAA Northeast Regional Tournament to qualify for the trip to Alabama.

In addition to the team's successes, two members of the squad were drafted by major league clubs. David Williamson was chosen by the St. Louis Cardinals in the seventh round, and catcher Matt Tupman, a junior from Concord, N.H., was picked by the Kansas City Royals in the ninth round.

This was the 36th season for Coach Jim Stone.



Dave Williamson



Matt Tupman

UMass Lowell Alumni Gift Items

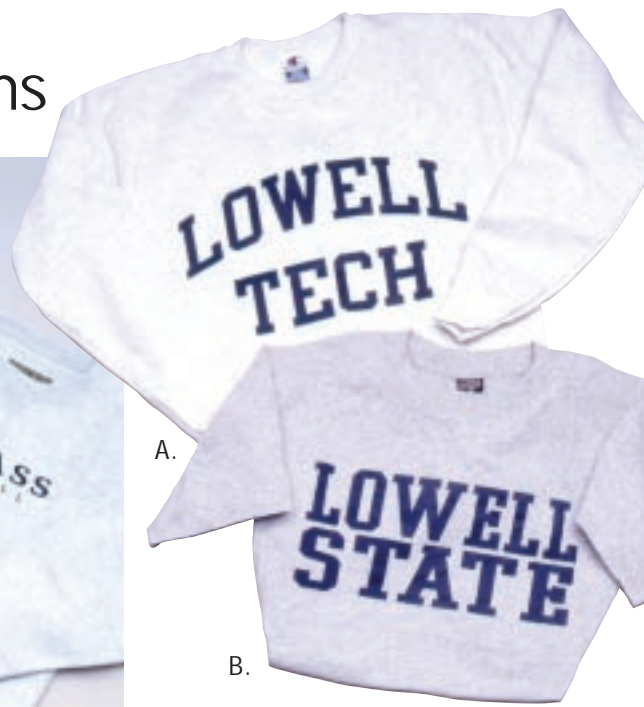


A. Champion reverse weave crewneck sweatshirt. Gray with navy block letters outlined in white. Available only in UMass Lowell. Sizes S-XXL. \$44.98. #MF3325

B. Champion UMass Lowell polo shirt with River Hawk logo. Available in white and ash gray. Sizes S-XXL. \$19.99. #MF9833



Gear For Sports Big Cotton Embroidered sweatshirts – Available in UMass Lowell ONLY. 80% Cotton 20% Polyester. Sizes S-XXL. Navy with Gray Embroidery or Gray with Navy Embroidery. #MF0101 \$44.98



A. Champion 50/50 fleece sweatshirt with navy block letters. Available in: University of Lowell, Lowell State or Lowell Tech. Sizes S-XXL. \$24.99. #MF6888

B. MVSport 100% cotton ash gray t-shirt with block letters. Available with ULowell, Lowell State, and Lowell Tech. Sizes S-XXL. \$11.99. #MF9834



A. Champion Youth 50/50 sweatshirt. Gray with Navy UMass Lowell Lettering. Sizes: S-XL. MF0104 \$17.98

B. Champion Youth 50/50 sweat pants. Gray with Navy UMass Lowell Lettering. Sizes: S-XL. MF0105 \$17.98

C. Champion 100% Cotton Youth T Shirt. Red with UMass Lowell River Hawk Logo. Sizes: S-XL. MF0106 \$12.98



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Money clip with University of Massachusetts Lowell seal. MF9814 \$19.98

Order form found on Page 40



University Chairs
Armchair. Black with cherry arms and back lasered seal. #MF9817 \$329.98



Rocker. Black with cherry arms and back lasered seal. #MF9818 \$329.98

For UPS shipping to your residence, please add \$25.00 Allow 6-8 weeks for delivery. Available with University of Massachusetts Lowell, Lowell Textile Institute, University of Lowell, Lowell State College, and Lowell Technological Institute seals.



Square 4 X 4 "Alumni" car decal. Available with ULowell logo or University of Massachusetts Lowell. MF9824 \$1.49

Cobalt blue coffee mug with the University of Massachusetts seal and "Alumni" in script lettering. MF9807 \$6.48

Order form found on Page 40

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