More than 4,500 Graduates Earn Degrees

The largest and most diverse class ever—4,534 strong—received degrees during UMass Lowell’s 2019 Commencement ceremonies.

For the first time in its history, the university held three Commencement ceremonies—one on Friday, May 17, for Ph.D. and master’s degree students, and two on Saturday, May 18, for undergraduates. Thousands of family members and friends were on hand to cheer for the graduates at ceremonies held at the Tsongas Center at UMass Lowell.

More than 1,600 members of the class graduated with honors, and more than 100 achieved a perfect 4.0 GPA. It was the 12th year in a row that the university has seen a record number of graduates, who came from 43 states and 113 countries.

“You distinguished yourselves as a community,” Chancellor Jacquie Moloney told the graduates. “And in the face of divisiveness, you exemplified graciousness and respect throughout your time here. In doing so, you contributed to the magic that makes this one of the greatest communities in the world.”

UMass President Marty Meehan ’78 asked the Class of 2019 to be committed to lifelong learning and to remember those who helped them succeed.

At Saturday’s morning ceremony for undergraduates in the Francis College of Engineering, the Kennedy College of Sciences and the Zuckerber College of Health Sciences, U.S. Rep. Lori Trahan opened her Commencement address by quoting the suffragette rallying cry from a century ago: “The young are at the gates.”

“Do not make the mistake of waiting your proverbial turn or thinking that life has some grand sequence. Your reaction, your perspective is powerful. Your calling will come. Be ready,” said Trahan, who was elected to represent Massachusetts’ 3rd District last November.

The Distinguished Alumni Award was presented to Brian Rist ’77, executive chairman of Florida-based Storm Smart Industries, the largest manufacturer and installer of hurricane-protection products in the U.S. His wife, Kim Rist, was presented with the Chancellor’s Medal for Outstanding University Support. The Rists, who live in Fort Myers, Fla., made a $5 million commitment to the university this year, one of the largest gifts in school history.

At Saturday afternoon’s ceremony for undergraduates in the Manning School of Business and the College of Fine Arts, Humanities and Social Sciences, Jack Wilson, president emeritus of the UMass system, addressed the graduates. Wilson received an honorary doctorate of humane letters, as did Gerald Coella ’78, CEO of MKS Instruments Inc., and Joyce Coella ’77, a former elementary school teacher. Oprah Winfrey, who helped raise $3 million for student scholarships during her visit to campus in November, is also an honorary degree recipient.

On Friday morning, 156 doctoral students and 1,259 master’s students received their advanced degrees. UMass Lowell Distinguished University Professor Meg Bond delivered the Commencement address, encouraging graduates to embrace the complications and uncertainty that lie ahead.
Faculty Experts Brief Legislators on Climate Change

Lawmakers’ Briefing Covers Science and Policy

When state Rep. Michael Finn was named chair of the House Committee on Global Warming and Climate Change earlier this year, two of the first people he had in his office were Assoc. Prof. Juliette Rooney-Varga and Prof. Mathew Barlow from the university’s Climate Change Initiative (CCI).

“I knew that I needed to learn a lot more about the subject, so leaning on experts is always a benefit,” said Finn, a Democrat representing West Springfield.

Building on that meeting, the CCI recently hosted Finn and five other committee members for a roundtable discussion on climate science and policy at University Crossing. More than a dozen faculty members from disciplines including environmental, earth and atmospheric sciences, public health, economics, political science and plastics engineering shared their expertise and scientific research with legislators.

“If I or any other members of the committee need information, we want to have you all on speed dial,” Finn told faculty members.

Also participating in the briefing were state Reps. Denise Provost (D-27th Middlesex), Dylan Fernandes (D-Barnstable, Dukes and Nantucket), Brian Murray (D-10th Worcester) and Richard Haggerty (D-30th Middlesex) and alumnus Jonathan Zlotnik ’12 of Gardner, a Democrat representing part of Worcester County who launched his first campaign from his dorm on South Campus.

Rooney-Varga led legislators through the En-ROADS Climate Solutions Simulator, which shows how changes in energy and economic policies could affect greenhouse gas emissions and climate outcomes on a global scale.

Researchers Produce Renewable Engine Fuel from Wet Biowaste

New Technique Helps Reduce Greenhouse Gas Emission

A team of researchers from UMass Lowell, the University of Illinois at Urbana-Champaign and China Agricultural University in Beijing has developed a new, sustainable way of converting wet biological waste into diesel-compatible fuel, using heat and water.

The process, called hydrothermal liquefaction (HTL), converts wet, solid biowaste—such as animal manure from farms, food scraps from restaurants and food-processing plants, and algae from wastewater treatment facilities—into liquid fuel that can be blended with regular diesel.

“This process is environmentally sustainable and has the potential to augment the country’s energy production while reducing greenhouse gas emission,” says UML Plastics Engineering Asst. Prof. Wan-Ting (Grace) Chen, who is a member of the research team.

Each year, the United States produces nearly 80 million tons of wet biowaste. Worldwide, the amount of biowaste produced is expected to climb due to urbanization, industrialization and population growth.

“Finding an effective means of repurposing biowaste into a resource is key for a sustainable future,” says Chen.

According to Chen, the renewable fuel blend currently has comparable performance to diesel in terms of combustion efficiency and its carbon emission profile. The researchers are conducting more tests to fully understand the effects of HTL blends on combustion characteristics, including the introduction of additives to further reduce the blends’ pollutant emission levels. Their ultimate goal is to patent the technology so it could be commercialized.

Study Aims to Improve Sleep for Older Night Shift Workers

Research Seeks to Help Older People Remain Alert and Healthy on the Job

Asst. Prof. Yuan Zhang of the Solomont School of Nursing is partnering on a $1.7 million four-year National Institute of Aging (NIA) grant to study strategies to improve sleep for older night shift workers.

Zhang is collaborating on the grant with Jeanne Duffy, an associate professor at Harvard Medical School. The study builds upon previous research by Duffy that found an eight-hour sleep schedule that began in the early afternoon led to improvements in night shift alertness and performance.

For many of the 3 million older people in the U.S. who work the night shift, a solid night’s rest is hard to come by. Most overnight workers sleep in the morning, which means they wake up eight or more hours before their next shift. They are trying to work when their biological clock is set to sleep, says Zhang.

In addition to weariness, disrupted sleep can lead to a host of health problems, including depression and cardiovascular disease, as well as accidents on the job or at home.

As part of the study, the research team will recruit participants in New England to field-test an alternative schedule. While one group of night shift health care workers aged 50 to 65 years old will follow its usual schedule of sleeping in the morning, two other groups will sleep for eight hours, starting in the early afternoon or at a desired time. Each participant will take part in the study for two weeks of night work.
ROTC Cadets Get Nutrition, Exercise Help from Health Sciences Students

**Partnership Helps Cadets Meet Fitness Goals**

Cadets in the university’s Air Force Reserve Officer Training Corps (ROTC) are getting help staying on track with their rigorous fitness goals from students and faculty in the Zuckerberg College of Health Sciences.

UMass Lowell Air Force ROTC Commander Jesse Jaramillo partnered with Zuckerberg College of Health Sciences faculty two years ago to deliver nutrition and exercise science education, counseling and training to cadets.

Asst. Teaching Prof. Kyle Coffey, Zuckerberg’s exercise science program director, and his students revamped the ROTC physical fitness training regimen. Master of Public Health (MPH) dietetics students began offering weekly one-on-one counseling sessions on nutrition to the cadets. They track the cadets’ progress and offer guidance on everything from water intake to healthy food choices in the dining halls.

“We have two years of data that show that our nutrition and exercise efforts are working,” says Jaramillo, who is also a professor of aerospace studies.

Jaramillo says that the partnership with the Zuckerberg College of Health Sciences team has been so successful that he hopes to see it replicated at other universities.

“Our delivery model, including nutrition and exercise science education, individual and group counseling and personal trainers, is looked upon as a benchmark standard across the ROTC enterprise,” he says. “Considering the challenge our nation faces with recruiting qualified youth for military service, it’s my hope that we can package this model and export it to our neighboring AFROTC units at MIT, BU, WPI and to the other 141 units across our nation’s colleges and universities.”

A Master of Public Health student counsels an ROTC cadet on nutrition.

**Student Entrepreneurs Hit Home Run with Benji Ball**

**Business Pitches Yield Share of $50K for Student Teams**

A game modified to make baseball more inclusive won the $6,000 first Campuswide DifferenceMaker award at the university’s seventh annual Idea Challenge competition.

Benji Ball, a baseball training game designed to make the national pastime easier to learn, including for special needs children, took the top spot in an evening in which $50,000 was awarded to budding student entrepreneurs aiming to solve various societal challenges.

“This is going to allow us to manufacture by midsummer and, hopefully, get us much closer to giving families and children a chance to play,” said team leader Benjamin McEvoy, a sophomore in the Manning School of Business. His teammates include Gavin Donohue, a sophomore in the Francis College of Engineering, Tristan Naboicheck, a freshman majoring in English, and Edward Morante, a sophomore education major.

Finalist teams, landing $4,500 apiece, included VoteLED, a voter education app; Use Cart, a smart shopping cart that makes shopping easier and quicker; ECG for Me, an electro-cardioathletic patch; and Jamfuse, which connects musicians with producers and others. Several runner-up teams were awarded $2,000 each.

Since the launch of the DifferenceMaker program in 2012, UMass Lowell students have formed 33 companies, filed for eight patents and raised $2.5 million in funding. Successful ventures include Nonspec, which builds prosthetics for people in developing countries; TopaCan, a portable device that turns beverage cans into environmentally friendly receptacles for cigarette butts; and invisWear, a personal safety alert device built into jewelry.

Former College of Education Deans Anita Greenwood ’92 (left) and Donald Pierson (right) congratulate Janis Raguin ’92 on receiving the college’s University Alumni Award in April.

New Scholarship Helps Attract Homegrown Talent

**College of Education Works to Close Diversity Gap in Teaching**

When Janis Raguin ’92 thinks back on her grad school experience at the College of Education, one of the things she remembers best is “the strong spirit of connection and community.”

She has tried to bring that same spirit to her own work as a middle school teacher and therapist. Now she’s joining the College of Education’s efforts to strengthen its connections with communities that are underrepresented in the teaching profession.

Last fall, Raguin and her husband, John, endowed the Grow Our Own Scholarship, which will help the College of Education engage and recruit more talented local high school students from diverse backgrounds. It’s part of a broader push by Dean Eleanor Abrams to address the diversity gap in Massachusetts public K-12 schools, where 40 percent of students are of color, but less than 10 percent of their teachers are.

“Most students end up teaching within a 25-mile radius of where they’re educated,” observes Raguin, who serves on the College of Education Advisory Board and received the college’s University Alumni Award this spring. “We hope students who receive this scholarship will stay here and inspire the next generation.”

Longtime supporters of the UTeach program, the Raguins have also made a major gift for the renovation of Coburn Hall, the College of Education’s historic home. “Both John and I feel very lucky about the education we received in Massachusetts public schools, and we wanted to give back,” says Raguin.
“Once there was a snail …” begins a Cambodian folktale about a race between a snail and a rabbit who wants to drink from the snail pond.

The tale bears a superficial resemblance to Aesop’s fable about the tortoise and the hare. But in the Cambodian folktale, the snail “wins” the race without moving; instead, he enlists all the other snails to fool the rabbit into thinking the snail is always one step ahead of him.

“From a Western point of view, the snails are kind of cheating. But from the Cambodian point of view, the small snails are working together to protect their pond from the big rabbit,” says Psychology Prof. Allyssa McCabe.

McCabe was part of a team of faculty led by MinJeong Kim, associate professor of education, that worked with community organizations in Lowell to collect, edit and translate “Why the Rabbit Doesn’t Drink from the Pond” and five other folktales from Myanmar (formerly Burma), Vietnam, Cambodia and Laos.

Kim, McCabe and Assoc. Prof. of Education Phitsamay Uy then worked with Assoc. Prof. Ellen Wetmore and several of her art and design students, as well as children’s book author and illustrator Anne Sibley O’Brien and some of her interns, to turn the folktales into an illustrated, multilingual book for use in the Lowell schools.

A standing-room-only crowd of students, faculty and community members packed O’Leary Library recently to celebrate the publication of “A Long, Long Time Ago in Southeast Asia.”

The professors and O’Brien worked with the schools on the project, organizing a professional development workshop for 30 teachers from elementary schools around Lowell, which has a large Southeast Asian population. The schoolteachers developed lesson plans for the stories.

Kim says it’s important for teachers to understand the cultural background and values expressed through each story: group cooperation vs. individual dominance in the tale of the snails and the rabbit, or keeping quiet vs. being outspoken in a story about a turtle who talks at the wrong time.

“A Long, Long Time Ago in Southeast Asia” will also be used to teach older children in Lowell their native languages, the professors say—and to teach UMass Lowell education students about multicultural children’s literature. Kim will teach a class next year on the topic.

The project was supported by a $23,750 Creative Economy Grant from the UMass President’s Office to the university’s Center for Asian American Studies.