

INFORMATION TECHNOLOGY | **2024**

OUTCOMES



UMass
Boston





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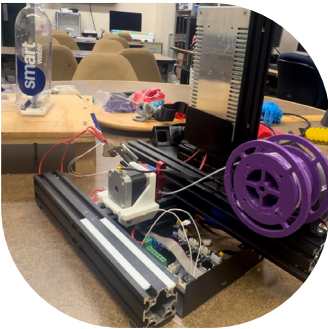
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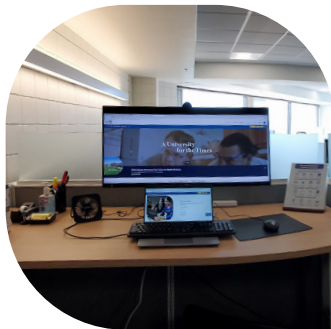
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Information Technology Outcomes (IT Outcomes) is a magazine highlighting the many collaborations between IT and members of the UMass Boston community.

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IN MEMORIAM

We dedicate this edition to the memory of our colleague, Terry Phalen. You will be deeply missed by your friends in IT.

ITOutcomes.umb.edu



“We are all connected to everyone and everything in the universe”—Serge Kahili King

Welcome to this year’s edition of IT Outcomes, where we celebrate the technological advancements, innovative initiatives, and collaborative efforts that define UMass Boston’s approach to shaping the future. This year, we are proud to center our efforts on the theme of “ConnectivITy”—a principle that reflects how technology bridges gaps, fosters innovation, and builds stronger communities.

At UMass Boston, ConnectivITy is more than just a theme; it is a cornerstone of who we are. It is embodied in the groundbreaking Immersive Nursing Suite, a project that combines state-of-the-art virtual simulations with real-world training environments to revolutionize nursing education. It’s seen in the new Canvas LMS platform, streamlining course management and improving the learning experience for thousands of students and faculty. It also fuels the spirit of collaboration in spaces like the Flex IT Space, where flexible work arrangements and shared tools empower our teams to adapt, innovate, and succeed.

Through the lens of ConnectivITy, we aim to expand inclusivity and accessibility. Initiatives such as the U-Access Laptop Donations ensure that students



can overcome technological barriers, while updates to employee identity management systems reflect our commitment to fostering an environment of belonging for everyone on campus.

These accomplishments highlight our belief in the transformative power of partnerships—between students and faculty, departments and disciplines, and our university and the community. Our Makerspace brings creativity to life,

enabling students from all disciplines to collaborate and innovate. Meanwhile, the Technovator Lab equips faculty and students with cutting-edge tools that blend theory with practice, sparking the next wave of educational innovations & excellence.

As you explore this edition, we invite you to reflect on how ConnectivITy shapes your own experiences and aspirations. Whether through seamless systems, empowered learning, or inclusive practices, IT’s role is to bridge possibilities and make them a reality.

Together, let us embrace the opportunities ahead, guided by innovation and collaboration. Thank you for being part of our journey in transforming UMass Boston into a beacon of technological progress and human connection.

 This welcome letter was generated using generative AI, guided by content created by our writers and managing editor, Brandon Miller. The AI was tasked with creating a welcome letter for the issue, reflecting our yearly theme of ConnectivITy and highlighting key accomplishments and initiatives.

Nursing Immersive Suite



UMass Boston's Nursing Program raises the bar with innovative immersive learning



UMass Boston's immersive nursing suite, powered by Echo Healthcare, transforms classrooms into lifelike settings.

UMass Boston's nursing program is top of the line, and one of the reasons for that is the commitment to engaging students in dynamic and innovative ways. A new project is set to change the game entirely by creating an immersive nursing suite that can simulate real-world settings using state-of-the-art technology. "The rooms are multisensory, engaging, and realistic," says Zack Ronald, Manager of Innovative Education Technology. "This space will have some extremely innovative, and first in New England technologies."

"The rooms are multisensory, engaging, and realistic,"

Zack Ronald, Manager of Innovative Ed. Tech.

Inspiration Behind the Immersive Suite

The project started when administrators at the Manning School of Nursing and Health Sciences noticed the plethora of post-COVID 19 federal funding opportunities being offered to institutions providing training to home health care providers. They put together a proposal asking for \$5 million, received \$3 million, and set out to build a physical apartment where nursing students could go in and act like they were working in a home. But after Rosemary Samia, Clinical Lecturer and Director of the Center for Clinical Education & Research, went to a conference presentation on immersive virtual technology, the plan shifted.

A Vision for Next-Gen Nursing Education

"The idea for the immersive suite at UMass Boston was inspired by a growing trend in healthcare education to use advanced simulation and virtual reality to enhance clinical training," Samia explains. "Recognizing the need for nursing students to engage with realistic, high-stakes scenarios in a controlled, low-risk environment, we wanted to push beyond traditional simulation methods. Our goal was to create a space where students can fully immerse themselves in patient care situations that extend outside of the hospital environment."

Building the Suite: A High-Tech Transformation

The immersive space has a target opening date of Spring 2025, but much progress has already been made toward preparing the suite. Campus Master Planning was able to find a location that was being underutilized by the parking and transportation office on campus, clearing out space in the Quinn Building. The existing rooms were turned into two 14×14 white boxes with a ceiling packed full of technology—speakers, microphones, projectors—where a variety of simulations could be run. While the makeshift apartment that was originally intended would only be able to provide one kind of training, the immersive space can simulate many different settings and scenarios, such as how to respond at a crash scene or how to work in an emergency room. "It also helps normalize the experience amongst students. We can put them all in exactly the same situation," says Dennis Swinford, Director of Campus Master Planning.

Cutting-Edge Design, No VR Headsets Needed

There is also no need for wiring or eyewear, explains Swinford. "All four walls and the floor, there are projections on them. And lasers run through the walls, so you are able to walk up to them and interact with things projected on the wall," he says. Not requiring headsets in itself provides multiple benefits. For instance, because eye contact is important for certain types of patient care, being able to maintain eye contact with a human and not an avatar is helpful. Plus, virtual reality headsets can cause nausea or disorientation in some individuals and limits the number of people who can enter the simulation to the number of available headsets.

A Fully Immersive Learning Experience

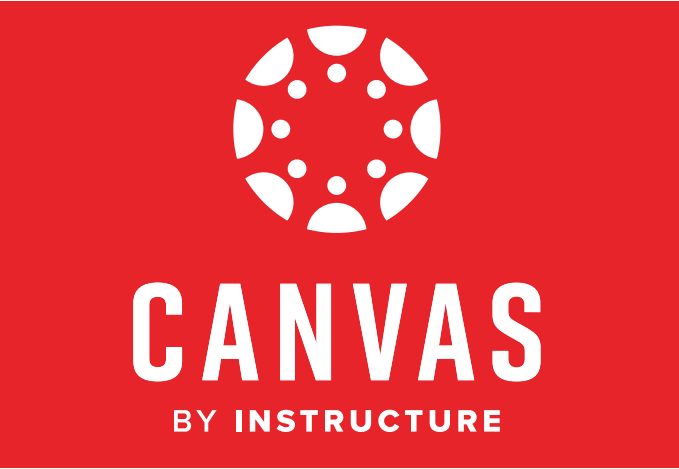
"The rooms are multisensory, engaging, and realistic," notes Ronald, who was the IT lead on the project. "The Immersive Space will include two 6-projector rooms with 360-plus-floor immersive experiences that will transport students to anywhere in the world along with cameras and microphones to capture the student experience." There are also going to be adjacent debriefing rooms, wherein students can observe what is happening in the simulation rooms. Instructors will be able to record students in those rooms and communicate back and forth between the simulation room and the debriefing ones. UMass Boston has partnered with Echo Healthcare to bring the immersive nursing suite to life, and everything from the color of the walls to the noise level of the HVAC was taken into consideration for

optimal performance of the simulations. Even the door hinges were considered, so that they are completely flat and do not allow for shadows when the doors are closed.

A New Standard for Nursing Education

According to Samia, while American nursing schools have started to implement similar technology, UMass Boston is setting itself apart as one of the first New England schools to incorporate a fully immersive room that projects images onto all walls and the floor. "This sets us apart from many other programs, offering our students a unique and cutting-edge learning environment that few schools in the area currently provide," she says. "Digital solutions and innovative tools are increasingly used in patient care. By integrating immersive technology, we are not only keeping pace with industry changes but also setting a new standard for nursing education. It also keeps students up to date with an evolving healthcare landscape where the delivery of nursing care outside of the hospital settings is increasing."





When UMass Boston learned that its contract with Blackboard would be ending in Summer 2025, those in charge were faced with a decision. On the one hand, they could remain with Blackboard as the company migrated to a new version after its purchase by Anthology. On the other hand, there was the possibility of moving to another learning management system, as UMass Amherst had already done when they switched to Instructure. Two teams were created—a core team in charge of decisions and a larger team made up of 270 faculty, staff, and students from the campus community—to weigh these two options.

The three systems in the running included Anthology’s Ultra—the LMS replacing Blackboard Learn—as well as Instructure’s Canvas and Brightspace’s Desire to Learn. After each company presented to the core team, Instructure and Anthology were both invited to campus to do two days of demonstrations for the campus community. “Their presentations focused on their Learning Management Systems, their unique features, and they also provided hands-on time with the tool. After that the core group voted based on input from their colleagues and Canvas was the clear winner,” explains Director of Learning Design Services Paula Thorsland. The core team made a recommendation to the provost’s office shortly thereafter.

Canvas was the clear choice for a variety of reasons, says UMass Boston’s Associate Chief Information Officer Apurva Mehta. “Canvas is a much more modern system. It is more open. The navigation is much easier. The features are better,” Mehta says. Thorsland echoes that sentiment but rattles off a list of other plusses. “Canvas uses less bandwidth than Blackboard, is more accessible to students, and offers an integrated mobile tool that allows students to participate in classes on the go,”

she says. “Canvas has many features to make the work easier for faculty including intuitive navigation, course building, and grading. The system remembers what you have done and offers quick processing of repetitive steps, and it also allows professors to easily share work with colleagues and amongst their own courses.”

Twelve faculty members running a total of 28 courses participated in the Spring 2024 pilot, while 80 faculty members and 165 courses were a part of the Summer 2024 pilot. The pilot allowed IT staffers to set up protocols, customize the interface, set up support and training, and otherwise prepare for a larger move. By Fall 2024, 848 courses were being taught by 504 faculty members using the Canvas platform. The rest of the faculty are expected to migrate their materials over in Spring 2025, in anticipation of the Blackboard contract’s end in Summer 2025.

5,000 courses are being migrated to Canvas



IT staffers are migrating roughly 5,000 active courses and archiving all courses from the past five years to help ease the transition. Thorsland and her department have also provided plenty of tools to support faculty as they attempt to familiarize themselves with the new system, including Canvas training events, weekly learning sessions, daily Zoom drop-in hours, and a self-paced Canvas training course. Faculty are appreciative of these supports, as well as the move to a more navigable and modern platform. “IT has a bunch of training sessions, which were super helpful. They also have a bunch of different shells set up for you that have a bunch of things in there for you to use already,” says Ashleigh Shelton, a Senior Lecturer in the Communication Department who was a part of the Spring 2024 pilot. “And then the thing that I think is most helpful for me is the online chat, which is through Canvas itself. With Blackboard, there is nothing like that that is immediate.”

Inside IT’s IT CARES charitable efforts

Ananta Sinha is Supervisor of Lab Operations and a Cloud PC Specialist in the IT Managed Services Department. This past year, with the encouragement of his supervisor, Director of IT Managed Services Trieu Ly, Sinha volunteered for U-Access for the first time. U-Access (or officially, the Office of Urban and Off-Campus Support Services) aims to empower and ease the burdens facing UMass Boston students struggling financially. The goal is to provide resources so that students can focus on their academic pursuits and not how they will fulfill basic needs. One of the biggest services that U-Access provides is a food pantry, which requires volunteer help to operate to its maximum potential.

“I helped out in sorting and shelving the food...It was important to shelve them in the right places, so that they can be distributed out properly,” says Sinha. “Later, we went upstairs to the 3rd floor of the Campus Center and helped sort and bag basic necessities like socks, tampons, etc. We basically opened the original packaging of the products and bagged a fixed number of them to be distributed.”

As noted, U-Access also supplies emergency toiletries, school supplies, and other goods for students in need. This too, requires volunteer help, but few employees realize how even the smallest efforts can be of massive assistance. According to Assistant Vice Chancellor for Inclusive Excellence Steven Neville, there are typically five to seven students trying to deal with between 3,000 and 5,000 pounds of food—often requiring them to shut down the pantry as students unload and organize donations.

In 2024, Ly’s team participated in the Spring Day of Action for the first time, in partnership with the Student Affairs Department. This event has students, faculty,

and staff meet on campus to commit to volunteering for the day. Upon arrival, people are provided with a list of opportunities for which they can sign up, all of which are completed on that day. “We had a blast,” says Ly. “It felt good because you build a connection with your team. And once you finish, you feel good because you did something good.” Knowing that volunteers are needed on a more consistent basis, Ly also committed to offering his team one volunteer activity each month. Tasks have included helping with student intake—which involves determining which services students need—as well as making goodie bags, loading and unloading trucks, and filling fridges.

Ly emphasizes that his commitment to giving back is inspired by Vice-Chancellor of Information Technology & Chief Information Officer Raymond Lefebvre, who has encouraged IT staff to be charitable through volunteerism and other means. For example, for the first time, Ly’s team



Pictured from left: Ananta Sinha, Trieu Ly, and IT student workers Paul Pilkington and Farida Loseille

created a basket of goodies to help raise funds for U-Access as part of a Winter 2023 raffle. Employees donated money with the hopes of winning the gift, but with the knowledge that all of the proceeds would go toward helping students in need. In the end, the “Sending Love & Joy” holiday basket—which included coffee, tea, a water bottle, and an Echo Dot—raised \$500 for U-Access.

Additionally, Ly put together a donation bin where staff could bring in food, unused clothing, toiletries, and other items. According to Neville, IT was the first department to donate as a group, similarly to how they were the first to do departmental volunteering—both of which have since inspired other departments to give back in similar ways. Neville also thinks that IT staff went above and beyond in their generosity. He says, “We went over expecting a few bags and ended up finding a whole cart full of donations.”

INCLUSIVE

Identity

Within the UMass system, there have been continuing efforts to better understand the needs of different communities of people and to make life on campus more comfortable for all students, faculty, and staff. The goal is for UMass Boston and its sister campuses to be not only diverse, but inclusive and welcoming to people of all identities and from all walks of life. Progress has been made in these efforts in 2024, with updates to the way employee identities are listed in HR Direct. “We are a higher ed institution and we want to ensure that people feel comfortable here in all aspects. Inclusivity is key in making people feel as comfortable as possible,” says Paul McLaughlin, Manager of HR Info Systems.

The first phase of the project has added features allowing employees to enter their pronouns into HR Direct, the software that captures employee data. It also involved changing the sex field to add two options—“unknown” and “X”—in addition to the existing “male” and “female” ones. The second phase will bring the ability to insert a chosen name as well as gender identity in the system. As IT Consultant Scot Cohen

notes, there is much behind-the-scenes work—coding changes, testing, and so forth—needed to make even the smallest of system changes. “You would think that you would just be able to turn the lights on and changes would appear everywhere,” says McLaughlin. “It takes a lot of coordination and communication, as well as education.”

Eventually, there is hope that employees will also have control over their name and pronouns in other places, including Wiser and Canvas. “Names and pronouns are a way that people communicate who they are to the world and can be really important and meaningful. Research has found that using the wrong name/pronoun for trans people contributes to anxiety and depression, or what scholars call minority stress,” says Dr. Chris Barcelos, an Assistant Professor of Women’s, Gender, & Sexuality Studies and the Director of UMass Boston’s minor in Queer & Trans Studies. Barcelos also highlights the importance of non-trans people using these new features, which takes some of the burden off of trans people having to educate others. “When people who aren’t visibly queer or trans share their pronouns it helps to normalize it as a part of our everyday interactions,” Barcelos says.



ThreatWatcher—Now monitoring tornado activity

While we most often associate American tornadoes with the Midwest and South, they can—and do—occur outside of these hotspots. In fact, dozens of tornadoes have touched down in Massachusetts since the National Oceanic and Atmospheric Administration began tracking them in 1950, including several in the F4 and F5 categories (the two highest on the scale). With global warming making weather more unpredictable than ever, a deadly cyclone in Boston is a threat for which every campus must have a plan.

Alertus ThreatWatcher was implemented at UMass Boston in May 2024, in an effort to further enhance the campus’s emergency preparedness. The product is a weather monitoring service that provides real-time updates regarding severe weather, scanning the information to isolate what is of immediate concern and

creating a computer pop-up for campus dispatch. “Before this, dispatch would receive tornado warnings on their cell phones like everyone else. Then would activate the alert system as needed. Now they don’t need to be monitoring cell phone alerts. This is all on the computers in dispatch,” says Director of Emergency and Risk Management Justin Comeau. Once a pop-up arrives, dispatch can get an alert out to campus—with specific instructions and details.

According to Peter Tierney, Director of IT Application & Support, UMass Boston has ThreatWatcher set up so that dispatch receives only immediate threats—Tornado Warnings, as opposed to Tornado Watches. The software is also set up to focus specifically on the area surrounding campus. “Prior to this, we did not have any warning for tornado events and now we do,” says Tierney. “We don’t want to use it. We hope we never have to use it. But if we do need to use it, it is there and it is a security blanket.”



U-Access Laptop Donations

IT student employee Wei Wilson and staff member David Wilson prepare laptops for deployment.

A generous donation from a City of Boston office allowed the IT Department to offer laptop donations this past year, meeting the needs of dozens of students lacking functional, dependable, and updated technology. This program was in addition to the Chromebooks frequently provided to students by way of U-Access, to which IT donates devices regularly. Over 100 students received repurposed Chromebooks last year, as the IT Department is continuously monitoring their inventory. There are roughly 300 Chromebooks on campus at the moment, per Director of IT Managed Services Trieu Ly. Once a year, staff examine each device to assess newness and functionality. Older devices are then fixed up and donated to students in need.

But Chromebooks are not the same as laptops, which are not typically provided to students due to the complex rules about what can and cannot be donated. Currently, the comptroller’s office does not allow campus computers to be donated, or even loaned out to students. This is partially why the laptop donation program was so exciting, in that external laptops are able to be repurposed in a way that internal ones are not. And since laptops do not simply fall out of the sky, a mass donation is a big deal for a university with so many students lacking regular access to efficient technology. “They gave us PCs and those things flew. Students found out, ‘I can get something, and I don’t need to pay thousands of dollars for it.’ Those things make a big difference,” says Steven Neville, Assistant Vice Chancellor of Inclusive Excellence.

The laptop donation was initiated by someone in Boston’s Social Security office, who reached out to campus contacts with the idea. Once the devices were on campus, IT staff got to work figuring out which devices were reusable and what fixes were needed to get them

where they needed to be. All of the machines had old hard drives, so money was spent on state-of-the-art hard drive replacements. The team also replaced any problematic keyboards, screens, hinges, or other faulty hardware elements. Of the 42 laptops that were donated, 25 have already been dispersed to students registered with U-Access and Ly says that another 10 laptops are ready to go out soon.

A functioning, updated device can be life-altering for UMass Boston students, who exist in a day and age where computers are required to complete coursework but who might not have the financial means to purchase (or repair) one. “It was relatively simple to apply, which was great because I am so busy with studies,” says second-year Psychology major Andrew Evans, who received one of the laptops. “I have learning difficulties, health issues, and financial problems and having this helped tremendously. It has made life easier, and I am getting good grades as a result.”

While the COVID-19 pandemic made it very clear that not all students have access to dependable computers at home, access to technology was an issue pre-pandemic and continues to be an issue now that students are back on campus. That is why it is so important for students to know that they are not alone in their struggles—that their hardships are on the university’s radar. “At an institution like UMass Boston, which is so big and has so many different departments, you have students that are here that are totally intimidated by the process,” Neville explains. “Knowing that the institution has your back and is trying to help you find your way through is a huge deal for students. What IT did in providing laptops provides help in establishing that mindset of ‘I can get through this.’”

Alert Beacon

UMass Boston

enhances emergency alerts



It is difficult work for all involved, but the only way to be prepared for a potential emergency is to ensure that systems are in place to handle any dangerous situation promptly and appropriately. At UMass Boston, that has meant prioritizing public safety protocols and purchasing the best technology possible. It has also meant anticipating potential threats we would all rather not imagine, such as a shooter on campus. Those in charge of public safety at UMass Boston run regular simulations that mimic an active threat on campus, and the latest one conducted in summer 2024 threw an additional tool into the mix: the Alert Beacon, from Alertus Technologies.

The first two Alert Beacons were installed in the campus's Residence Hall East in 2024, with future plans to expand this technology across campus. In contrast to the outdoor HPSA speaker system, the Beacon is an indoor technology that sits on the wall and can offer an additional mode of communication in the case of an emergency. It is especially useful in high-density areas with many guests, as guests are external to the campus' database and therefore would not receive security alerts through many of the other modalities UMass Boston uses, such as voice calls, e-mail or text. In a situation requiring people on campus to have immediate information, the goal is to use as many methods as possible to ensure the safety of our community. In anticipation of threats that need instantaneous notification, there are pre-scripted messages ready for immediate release to the Beacons, as well as other campus technology like televisions, desktop computers, and the speaker system.

"This is just further enhancing our ability to get an emergency alert out to our community in a timely manner. The more modalities we have to push an alert out, the more likely that people are going to see it

and act," says Director of Emergency Management Justin Comeau. "Adding Alert Beacons to our campus enhances our ability to issue timely emergency alerts to the campus community. This is just one of the many methods we use to ensure comprehensive communication during emergencies." Comeau's office had already identified other areas where the Beacon technology would be useful, such as the Clark Athletic Center, where family and friends might visit to watch a sporting event or attend a Welcome Day.

The IT Department was actively involved in bringing the Alert Beacon to campus, working closely with Comeau's office to ensure it was up and running quickly. Tasks included pulling the necessary cabling through walls, connecting the technology to the campus network, ensuring cybersecurity was in place to avoid any outside interference, and then integrating it into the university's overall notification system. The IT Department is also responsible for confirming the alert system is running smoothly. Campus safety systems are monitored on a daily basis to make sure they are always operational.

While these additions to the notification system could be useful in a situation such as weather closures, they are especially important when it comes to potential threats that require people to immediately evacuate, shelter in place, or take other action. The threat of a violent event on campus is one the university takes very seriously in today's climate, where school shootings are by no means a rarity. "The campus is trying to harden our notification systems. Universities are soft targets and we need the ability to communicate with our students, staff, and faculty when something like that happens," says Jamie Soule, Director of Network Services. "When you're talking about an active shooter, you need all your ducks lined up. It's just enhancing emergency notification to our campus."

C&EE

Community & Executive Education



UMass Boston is in the process of bringing continuing education courses back to campus, after years without them following the end of CAPS. In particular, the university is developing a community and executive education program that will be open to anyone looking for non-credit learning opportunities. According to Assistant Provost, Community and Executive Education Tina Chang, the goal is to have a separate academic unit that offers these continuing education courses, offering things such as certificates and micro credentials upon course completion.

This time, the school is doing so in a way that will modernize the experience of finding, enrolling for, and even paying for classes—making everything self-service and increasing efficiency. With UMass Boston's shift to Canvas from Blackboard, a plethora of new options became available to the university. One such option was Canvas Catalog, described by the company as "a simple, modern, elegant course catalog and a branded marketplace for all of your institution's course offerings." The platform will allow UMass Boston to centralize the continuing education experience, in the process creating a self-service model that will replace the more laborious procedures of the past that involved multiple campus offices and required much manual labor.

According to Chang, the previous model used on campus required the registrar's office to create student accounts and enroll students, another office to create and distribute billing, and more. It also required students to remember to pay their bills, and staff to chase after those who did not do so in a timely fashion. None of these tasks apply now that Canvas Catalog is in the picture. Students can now browse the course catalog, enroll themselves, and pay for a course upon checkout. "This reduces the redundancy and manual efforts of administrative staff,"

explains project manager Sheri Ryder, who highlights the self-enrollment and checkout functions as key aspects in reducing administrative work. Canvas Catalog basically turns the process into something reminiscent of an Amazon shopping experience, which people have come to expect in all areas in today's modern age.

UMass Boston has already piloted the credentialing piece, offering a few continuing education courses in summer 2024, such as a micro-credential in offshore wind and a program in cancer genomics. However, work

is still being done to set up Canvas Catalog and an official launch of the Community and Executive Education program is currently slated for spring 2025. While Canvas does a lot of the heavy lifting, there is still work to be done to get it all set up. "To be able to host those programs, we need to build out the operational structure to support those programs," says Chang. For instance, Associate Chief Information Office Apurva Mehta says the university's web services

team is personalizing and branding the template provided by Canvas, while the IT Department is also working on the credentialing and payment pieces of the puzzle.

The plan is for all community and executive education programs to be hosted in the catalog, which will make UMass Boston competitive with other area schools, per Mehta. The catalog will be public facing, and therefore browsable by anyone looking for potential learning opportunities, with the hope that the university can attract new students who may not have previously considered UMass Boston for continuing education. "It helps the university in the sense that we are now offering a service not just for our undergraduate or graduate students. These are offerings for anyone that wants to take a course," says Mehta. "We are tapping a new market we have not had access to."





MakerSpace

Where creativity

UMass Boston's MakerSpace is a place that fosters creativity and hands-on engagement in the learning process. In the last couple of years, the space had shifted to a model wherein the "lab" was turned into a creative studio. "With IT funds we were able to get reliable printers and components to continue to make the place a true MakerSpace Studio," says Zack Ronald, Manager of Innovation Education Technology. "Our model now is student driven. Students can take a 90-minute MakerSpace Certification Course, taught by one of the MakerSpace students, and be able to print within reason." Students, staff and faculty now have access to 3D printing, 3D modeling, electrical components such as Arduino, ESP32's and Raspberry Pi's and components, sewing machines, robotic components, and a number of tools which allow them to make and create.

Empowering through Certification

More than 500 students have become certified to use the MakerSpace, thanks in no small part to the student workers who keep the space running smoothly. "The certification course is something that we designed to train students to be able to use the machines themselves," says Olivia Moos, a senior computer engineering major who works at the MakerSpace. "It is catered to people that have never done any 3D printing or 3D modeling before. At the end of the course, they are able to use our machines and software to print out the models

Innovation

& education meet

that they made." With help from her peers, Moos designed the certification course that she now teaches weekly.

Supporting Engineering Education

Student employees also provide training to larger groups, such as the 100+ students enrolled in Dr. Rafael Valotta Rodrigues' Engineering 104: Introduction to Engineering. Valotta Rodrigues utilized the MakerSpace for the first time in 2024, developing two projects—one individual, one group—that provided students with hands-on 3D printing experience and the ability to create something tangible from scratch. "I think the reactions from students are very nice. The actual 3D printing and getting to see a drawing from a computer becoming a touchable object—something real—they get very excited about it," he says.

Embracing Sustainability in 3D Printing

Realizing how much waste printing creates, the MakerSpace's student employees have taken initiative to recycle whatever materials they can. "We had always known we were generating a lot of filament waste. Most things that get 3D printed require support, prints fail, and each thing that gets printed generates a little bit of waste in any scenario," says Sydney Bailey, a May 2024 graduate. The MakerSpace team currently uses leftover scraps to make small items—they blend it up, melt it down, and use silicon molds—but the goal is to eventually turn scraps back into usable filament.



They have partnered with the Master Planning and Sustainability Office to reach this goal, and to fulfill a mission of becoming zero-waste by 2025. In addition to recycling scraps, workers also continuously find innovative ways to refurbish donated equipment and cut down on waste—for example, by shifting from plastic filament holders to cardboard to be more environmental.

Furthermore, Moos has spearheaded efforts to utilize plastic bottles at the MakerSpace. After seeing someone reuse plastic in a similar way on social media, she used parts of an old printer to create a bottle filament machine that could take advantage of the mass amounts of used Smartwater bottles on campus.

A Welcoming Space for Collaboration

The MakerSpace has developed into a very important part of the UMass Boston campus, and everyone involved notes the inclusive atmosphere, wonderful leadership, and student-led initiatives as keys to its success. "Students from all disciplines come in seeking advice for projects or things that they are interested in. Our student employees act as mentors for them and provide them with assistance," says Ronald. "I feel the approach of students teaching the certification courses, teaching the workshops, and working directly with students to help them with projects makes the studio a welcoming place."

The process of creating the filament:

1. Starts with empty water bottle
2. Water bottle is cut into strips
3. Strips are fed into recycler machine



1



2



3

Zero Waste
by FY 2025



Enhancing student learning with innovative technologies

Technovation is about the merging of technology and innovation, and there has been no shortage of innovation this past year. The Technovator (UMass Boston's Technology Innovation Incubator) has 15 virtual reality headsets—and numerous applications such as VR Expeditions 2.0, Visible Body Atlas, and FrameVR—that can be used to create immersive experiences appealing to all learners. “The Technovator provides faculty and staff with access to cutting-edge technologies they might not otherwise have the time or resources to explore,” explains David Martinez, a senior IT major who works in the space. “It’s a place where they can collaborate on projects, learn new tools, and develop innovative solutions to enhance their teaching. It also helps bridge the gap between theory and application, enabling staff to bring more interactive and immersive experiences into their classrooms.”

While faculty, staff, and researchers often come to the Technovator to find out what technology might be available, they are not limited by what is already created. The students who work for the program are given free reign when it comes to exploration and creativity. This, in turn, helps them develop unique ways of integrating technology in the classroom. “Students that work for me are empowered to work on projects and take ownership. This gives them the opportunity to learn from one another and develop skills and projects that will help them acquire jobs when they leave the University,” says Zack Ronald, Manager of Innovative Education Technology. “We also understand what helps students as students are the ones working for me. This by extension allows the student perspective to transfer to the faculty in a way that works and is fundamentally sound.”

Take the new Canvas help tool built by Mohammed Mustafa Ahmed, a computer science student

who is part of the PACE program and has worked at the Technovator since early 2023. “Most faculty members don’t know where to find certain sections, so we designed a chatbot that will tell them everything about Canvas,” Ahmed says. Once he found an AI model that could answer all Canvas questions (called Gemini), Ahmed had to create a database to feed data into the chatbot, including links specific to UMass Boston. “We help to innovate technologies in a way that is going to make life for faculty and students easier,” Ahmed says.

Another project is a BeaconFlex application designed to show two cameras and screen at the same time for remote students. This has been a challenge because Zoom is constantly updating, but the team hopes to have a working beta for January. Martinez also recently developed a web application for the Center for Clinical Education and Research, which focuses on enhancing the education experience of students in the university’s renowned nursing program. “This app allows instructors to play different cardiovascular sounds online as part of training students. We paired this web app with a custom Bluetooth-enabled stethoscope, allowing students to experience simulation exercises,” Martinez says.

The overall ethos of the Technovator is important in its success, as students are encouraged to take big swings and to value all opinions. “The culture at the Technovator is one of openness, collaboration, and creativity,” Martinez notes. “We maintain this culture by encouraging everyone to share their ideas, regardless of experience or background. Whether it’s during workshops, casual brainstorming sessions, or project work, the focus is on making technology approachable and fun for everyone involved.” Adds Ronald, “we operate in a fail forward mentality—to try and fail and try again.”



One Button Studio

In November 2024, UMass Boston’s Healy Library got an exciting new feature that is sure to impact the campus for years to come. It is called the One Button Studio—a place where students, faculty, and staff can go to record presentations, lectures, and other material using a turn-key system with only one button. Insert a flash drive, push the button, and the camera, lights, and microphone turn on. “It’s super simple, and you can record video without having to know any technology,” says Dean of University Libraries Stephanie Walker, who notes that a place to record for a video assignment or practice for a presentation/speech/interview has been

a top three concern for students since her arrival. “I know UMass Boston students uses for this will only be limited by their own creativity—and that’s huge. I can see faculty popping in to quickly make a video for a class without any fuss, and without having to get staff help or extra equipment.”

To house the studio, it was decided that using a buildable soundproof booth would be easier than constructing a room from scratch. “We worked with Whisper Room to provide us with an accessible room that would fit on the 4th floor of the library, yet be big enough to house all the equipment,” says Manager of Innovative Educational Technology Zack Ronald. “We also worked with Revolution Lightboards to add a Lightboard configuration—a glass board that has embedded LED lights on which one can annotate—and custom layout that would fit inside of the whisper room.”

One Button Studios were invented at Penn State Libraries in 2014. Since Walker installed one at her previous library, she was immediately onboard when Vice Chancellor of Information Technology & CIO Ray Lefebvre approached her about bringing a One Button Studio to campus. This is just one more way UMass Boston is using technology to provide the best possible education experience.

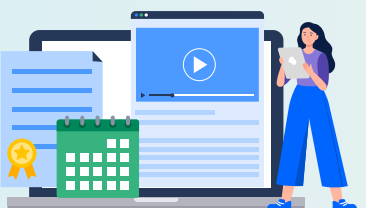
Wiser Online Training

When Wiser was first introduced to UMass Boston, there was a full-time person whose job it was to train staff and faculty on how to use the multi-purpose student administration system. When that person retired, instructional Technology Specialist Katherine Ananis whittled the three-hour, in-person training down to two hours, but the inefficiency of the model became clearer once COVID-19 hit. Ananis was tasked with doing individual sessions via Zoom rather than group training sessions, and she remained the gatekeeper of all information in the 43-page handbook. This was the genesis for moving things online, decreasing the labor needed for the training as well as increasing trainees’ agency.

A shift to online meant creating a WordPress blog to house each of the 15 modules, after first editing and updating all text in the handbook. Student worker Frayni Calderon was charged with creating the blog, and

he also helped update an outdated PeopleSoft video that did not feature Wiser’s newest interface. Ananis created the script, which Calderon then inputted into the system so that AI technology could narrate the video. “This is a step-by-step tutorial where it is easier to see the steps you need to take, and we are showing them in real time what they need to do,” says Calderon. The duo is now working on creating videos for each individual module.

Staff can now complete the training at a time convenient to them and return to the training materials as often as needed. “We really want to get people comfortable going online and really looking at the modules and following the steps on their own,” Ananis says. “We are hoping that most people will be able to look at the online training and no longer require personal assistance.”



A Tale of Two Technologies

The convergence of AI and cybersecurity

In the world of cybersecurity, we're witnessing an arms race that feels straight out of a sci-fi novel. Artificial Intelligence (AI), once the stuff of imagination, is now the star player on both sides of the digital battlefield. We are witnessing firsthand how AI transforms our approach to protecting digital assets, but here's the kicker: it is also significantly enhancing the capabilities of cybercriminals.

Let's not sugarcoat it—the bad guys are getting smarter, and AI is their new best friend. Imagine malware that adapts quickly, slipping past our defense measures like a chameleon. That's the reality we're facing; it gets worse. Picture this: AI algorithms sifting through the vast ocean of our digital footprint, crafting phishing emails so convincing you'd swear they were from your best friend. It's social engineering on steroids, keeping us up at night.

Before you unplug your laptop and move to a cabin in the woods, there's hope; we are not standing idle. We are leveraging AI and fighting fire with fire to level the playing field.

Think of AI as our tireless digital sentries. AI models are being trained to identify complex attack patterns and malicious behaviors across extensive datasets in real time, which would be impossible for human analysts alone. They constantly adapt and learn from each new threat they encounter. It doesn't just raise the alarm—it takes immediate action to isolate compromised systems or block suspicious traffic, often before we even become aware of the threat. This rapid response time is crucial in a world where every second counts in preventing data breaches or system compromises.

AI is becoming an indispensable ally for those of us managing Security Operations Centers (SOC). Remember those endless hours spent hunting for elusive threats? AI is changing the game. It connects the dots, correlating seemingly disparate data sources and un-

covering hidden threats that could have slipped through the cracks. This enhanced threat intelligence allows security teams to stay one step ahead of threat actors, proactively strengthening defenses against emerging threats.

Imagine having a seasoned security expert by your side, one who's read every security manual, evaluated every known threat, and can process information at superhuman speeds. That's Copilot for Security, a game-changing force multiplier.

When an alert pops up, Copilot doesn't just regurgitate data. It gives you the story—who's attacking, how they got in, and what you need to do about it, all in plain English, no tech jargon required. It provides rapid incident triage, automated threat analysis, and guided

response actions. It can quickly summarize complex security incidents and suggest remediation steps based on best practices and the latest threat intelligence. Copilot will summarize the incident, identify affected systems, explain the attacker's tactics, and suggest containment strategies and novel countermeasures—all in minutes and with unprecedented agility.

For the novice, it's like having a mentor on speed dial. Its natural language interface democratizes access

to advanced security insights. Less experienced staff can leverage the collective knowledge, effectively "borrowing" years of experience to make informed decisions. For the seasoned staff? It will handle the grunt work, automating repetitive tasks so they can focus on more complex issues.

As we stand at this digital crossroads, the future is far from certain. Will AI-powered attacks overwhelm our defenses, or will our AI tools keep us one step ahead?

One thing is for sure—the cybersecurity landscape of tomorrow will be shaped by those who can harness AI's potential today. Those who do will have the best of times, and those who don't will have the worst of times.



In recent years, UMass Boston has both tackled a crumbling underground garage and created new above-ground parking, but neither of these endeavors streamlined the overly long processes in place for obtaining permits, updating vehicle information in the system, or other seemingly simple tasks. This year, the IT Department partnered with Transportation Services to put in place software offering a self-service portal that is both more efficient and more dependable for the customer. The new software also aids those employees in charge of dealing with parking matters, eliminating the tasks they were doing manually but which a computer can easily cover. For instance, staff and students previously needed to fill out a web-based form or send an email if they lost a card or had a vehicle change before the new parking portal. Then, an employee would need to manually update everything, which took more time and was more laborious than it needed to be. Now, there is a daily feed from the Beacon card office that is refreshed every morning, greatly speeding up the process for all.

T2 Flex is a product specifically designed for parking permits, and it offers a completely self-service experience for the end-user. The SSO portal allows people to see what specific parking options are available to them based upon their role at the university, then choose the one they want. There are also increased payment options for student and staff in the new portal, and decreased steps in everyday parking processes. For instance, parkers used to have to take a photo of their ID card and license plate number when they applied for a permit, each semester. In addition to an easier renewal process, the portal has similarly easy options for license plate changes, permit cancellation, and payroll deduction initiation. "The services that they need, they are getting faster because of those automated processes," says Timothy Dunn, Director of Transportation Services.

With roughly 3,000 parking transactions per year, errors are bound to happen—but the parking portal greatly decreases the chances of that by digitizing processes. If someone cancels their permit, for example, the portal ensures it is definitely cancelled across all areas with relatively limited work on the part of the user. The system will make sure that their card no longer grants access, that any deductions stop coming off a paycheck, and that the plate number is no longer in the system. Previously, each of these things needed to be manually completed, so the SSO portal is also a huge win for parking office employees, who were receiving upwards of 75 emails a day (as well as phone calls) during peak times. According to Dunn, employees in the parking office were sometimes working 10-to-12-hour days due to the demand for their services.

A move toward an online parking portal was one that was long overdue—Dunn recalls, mentioning the need to move things online when he interviewed at UMass Boston in 2022—but the mid-January 2024 debut of the Quad Lot put a ticking clock on the need for a new system. This is because, unlike all of the lots that came before it, the Quad Lot

was ungated and policed entirely by mobile cameras. The university needed a quicker method for updating permits and plate information so the monitored cameras would be effective as enforcement. While the team was tasked with having everything up and running in time for the Spring 2024 semester, a vendor contract was not signed (with T2) until September 2023, which illustrates the fantastic speed at which collaboration occurred thereafter. Eight different integrations were involved in setting up T2 Flex, involving many different offices and departments. "This project was a really great example of lots of coordination and cooperation between tons of different areas," says Data Integration Specialist Mary Ryan.

"This project was a really great example of lots of coordination and cooperation between tons of different areas"

Mary Ryan,
Integration Specialist



Student Orientation

Success starts in the lab

Since student orientation is largely centered in campus computer labs, Director of IT Managed Services Trieu Ly and his team play a pivotal role in whether things run smoothly or not. With so many incoming students scheduled back-to-back, there is no room for lengthy delays or incomplete fixes. Ly's team began preparing for 2024 orientation long before students arrived. They set up all computers to automatically forget cookies at the end of each session, updated all software so no pop-ups distracted students, and set up mobile carts with projectors in each lab. The team also created a backchannel wherein people can more easily communicate—and therefore, more quickly fix—issues needing troubleshooting, such as Wi-Fi problems.

“New student course registration could not happen—it would be a complete barrier for enrollment—if students could not get onto Wiser, either because of a multi-factor authentication issue or if they need a password reset,” says Teresa Goyette, Director of the Student Success Center for the College of Science and Math. “A little technical problem that a student could have would actually cause quite a big delay with their whole enrollment process.” Goyette praised the way that the IT staff proactively anticipated issues, which she noted was not always the case during previous orientations. For example, knowing that students have to watch security videos and answer questions in order to log back in after a lock out (from too many failed logins), laptops were earmarked specifically for this purpose, with IT staff there to help students rejoin the group as soon as possible.



Gone are the days where students had to be sent to the third-floor service desk in Healey library whenever they experienced a technology problem, because Ly's team ensured that knowledgeable staff were close by at all times. In 2024, there were stations set up in front of every lab for each orientation session. Four professional staff members and an additional four student staff members were made available at all times. In fact, though many IT staff have hybrid schedules that do not require them to be on campus each day, Ly requires his team to all be on campus for orientation. In the past, a student could miss 30 or 45 minutes of orientation while waiting to get their account fixed.

The staff's presence in the lab made many small processes easier. For example, it is often difficult to get cellular service in the computer labs in the Healey library. In situations where a student was required to receive a phone call to authenticate their account, it would have been impossible for them to both answer the call and click the necessary computer buttons at the

same time. Because Ly's staff members were around, they were able to send students to areas with reception and sit at the computer to complete that portion for a student before things timed out. Mobile Specialist Anh Do notes how students do not always even know they have an issue. For instance, they may wait and wait when faced with a blue/green screen after logging into Wiser, not realizing this means it is not loading properly. Without staff there

to help, students are likely to waste precious time when all it takes is a new tab to solve the problem.

The IT Department's work during orientation is not only a benefit for students, but also the staff tasked with helping students navigate this important time. For Goyette, this has led to feelings of collegiality and a sense of partnership with the IT Department. “We are developing a relationship. There's a bond that we are establishing, and it really goes back to the urgency that is required in that moment,” she says. “The friendliness factor is just off the charts, and that really matters. Even when we are not in a situation where any of the staff need help, when we see the IT employees, we just have friendly conversations. It is a personal relationship now. We are not just a number.”

IT Pop-Up Service Desk

Making service easier than ever



Pictured from left: Tony Manibusan, Nasser Abasali and John Ly

No matter how long ago they attended, anyone who has ever been a college student knows how overwhelming those first few weeks can be. There is so much to learn even before you show up in class for instruction, and very little of it can be done without technology. This emphasizes the importance of having a customer-focused IT Department that is committed to making life easier for students (as well as staff) as they become acclimated to UMass Boston. One way that the department ensures easy access to support is through the use of pop-up desks—desks populated with a variety of staff and student workers that are located in key areas during student orientation and the start of each semester.

Held over the summer, student orientation is really where it all begins for incoming students. This is where they learn how to do things such as log in to Wiser and enroll in courses, as well as other skills they will need to be self-sufficient in future semesters.

While students are instructed on how to set up their accounts prior to arriving on campus, many do not check their e-mail or complete the necessary tasks. There are others who do these things, but who run into unexpected complications requiring immediate assistance. “Programs like pop-up desks are important because they make the new student experience more user-friendly,” says Jason Courtois, a computer science major and one of IT's student workers under the PACE program. “It makes it more efficient because we will have lines of students with issues and instead of sending them to the library, we can help them right there.”

The pop-up desks are also set up at the start of each semester, with the goal of helping students, staff, and faculty access help without having to wait for a long

period of time. The start-of-semester problems are similar to those staff see during orientation pop-ups. Multifactor authentication and password lockouts are the biggest issues, followed by Wi-Fi, Wiser, or learning management system trouble. To ensure that all sorts of issues can be dealt with on the spot, the pop-up desk staffs a variety of experts—a desktop expert, someone from application services, someone from the security team, and so on.

For Nasser Abasali, Director of the IT Service Desk, the most important goal is for people to leave the pop-up desk feeling positively about the service they received and their overall interaction with IT staffers. “Make sure you

give them a memorable experience,” he tells those who staff the desk. While knowledgeability is important, so too is friendliness and timeliness, says Abasali. In an effort to further streamline the walk-up experience for Spring 2024, a check-in system was created to handle any lineups that might emerge. A ticketing system displays the order of the line using an iPad on a kiosk, which increases efficiency and provides clearly communicated timing expectations. People can now walk away

for a few minutes to go to the bathroom or get a coffee, with the knowledge that they are in the queue and will receive notification when their turn is approaching.

Students have certainly taken note of IT's presence in the student center, and the increased convenience this offers. Take Mayi Perez, an Africana Studies and Human Services student who recently transferred to UMass Boston. Perez stopped by the desk to discuss a keyboard issue, but only because walking by the pop-up made it incredibly easy. “It was very helpful. Where else am I going to go? I'm busy. I can just walk by and ask a question,” she says. “It feels good to see that our tuition money and fees are being used for us.”

“Programs like pop-up desks are important because they make the new student experience more user-friendly,”

Jason Courtois,
IT Student Employee



FlexIT SPACE

Bringing hoteling to UMass Boston

Mark O’Sullivan had worked on campus at what used to be called the Distance Learning Video Production Center until recently, when he moved to a more flexible schedule that saw him working from home two days a week. Because he was no longer going to be on campus daily, O’Sullivan gave up his permanent workspace and became one of the many staff members who now work from the flex IT space in Wheatley Hall. For O’Sullivan, this new space has offered only positives, including a chance to work alongside new people and a decreased worry about where he would be working from when on the days where he is on campus without a permanent homebase.

The flex IT space is UMass Boston’s first foray into hoteling, an office management strategy that allows employees to reserve space rather than have a permanent desk. At UMass Boston, the first flex space was not just a move toward modernization, but also a matter of necessity—an ending lease at the Bayside site was going to displace about 25 IT department employees and a new home had to be found for them. The Office of Campus Planning and Sustainability identified the former CAPS Dean’s suite as a usable space, but much work was needed for it to be habitable.

Senior Campus Planner Tina Perez took the lead on making the location functionable. Amongst the many issues were unexplained leaks, rotted and corroded beams, and ventilation problems, Perez says. Once those problems were addressed, the space was outfitted with new paint, LED light fixtures, and a carpet specifically designed to enhance concentration and reinforce well-being. Perez worked with vendors to ensure an ideal layout for the furniture but relied on the IT Department to help determine all of the tech needs for the hoteling space, which opened its doors in March 2024 (original sketches began in December 2022).

Vice Chancellor and CIO of Information Technology Services Raymond Lefebvre says that it was “a human experiment” asking people to give up their offices and use flex space but noted that a similar model had already been successfully implemented by the UMass system’s President’s Office. Lefebvre and colleagues took a field trip to Westboro and used that space as a working blueprint for the one UMass Boston built. They created 15 cubicle spaces, each with its own moveable desk (suitable for sitting and standing), built-in docking station, and large, curved monitor. All employees need to bring is their



own laptop, and even then, there are a few extra kept on-site in case someone’s breaks or is forgotten. Robin Room Scheduling software allows people to reserve a cubicle in advance and avoid any potential conflicts. Three of these cubicles also have privacy doors.

In addition to cubicles, the space has individualized flex rooms and a meeting pod for in person meetings, which Perez refers to as a “huddle space.” The pod has a table and chairs in its center, slats that open at the top for circulation, and is completely tech-enabled with a built-in computer and hookups for other devices. It offers a small meeting space in a central location, which is a plus for a department like IT that houses people in many buildings. “With the flexibility of the scheduling, different departments within the IT umbrella can work together and collaborate in ways that they hadn’t been able to before because they were located all over the place,” says Perez.

The flex rooms, which are meant for staff to participate in digital meetings, are built with privacy and noise control in mind. Crafted from what was once music practice spaces, each flex space has soundproofing

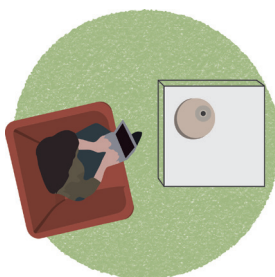
materials on the walls and a door that closes. Each is also outfitted with basic office tools (pens, staplers, etc.) as well as everything needed to keep them clean and safe, like air purifiers and a steady supply of Purell. Overflow desks, a lounge area, a kitchenette, and personal lockers are also contained in the suite.

There are other benefits to employees working remotely, beyond simply freeing up space and maximizing efficiency. For O’Sullivan, a commute from his home in Duxbury, Massachusetts, could take anywhere between 45 minutes and three hours depending on traffic. “I’ve had to adapt over time with commuting to include things like books on tape, calling people, having meetings in the car, talking on the phone. I try not to think of the commute as a waste of time,” he explains. Still, the extra time has been wonderful

for O’Sullivan, who has used it to exercise before work and in other ways that promote his general health and wellness. The positive effects on staff members’ mental health and work/life balance cannot be overstated, and the flex IT space is a great example of flexibility that benefits all parties.

“With the flexibility of the scheduling, different departments within the IT umbrella can work together and collaborate in ways that they hadn’t been able to before...”

Tina Perez, Senior Campus Planner



Tech Recycling Days

While UMass Boston has less than 3,000 employees, the university’s computer inventory has grown significantly over the years, including many devices that are no longer viable. This was the motivation for establishing Tech Recycling Days—events designed to make it easy for staff and faculty to dispose of outdated computers with minimal effort.

“When you surplus a computer, you are marking it as removed from the campus inventory and ensuring that the data is removed,” notes John Mazzarella, Assistant Vice Chancellor for IT Client Services. “If it is a computer that can store data, those have restrictions and have to go through the normal surplus process. Anything else—wires, monitors, keyboards, printers and whatnot—they can just go into the trash. They don’t have to go through the same process.” This process has historically involved somebody bringing a device directly to IT, along with a completed form.

This was difficult when it came to desktops, which lack the portability of laptops and iPads, and especially in cases where someone wanted to unload multiple devices.

A shift was made to streamline the labor involved in recycling technology, so as to make things as easy as possible for faculty and staff. No forms are required for Tech Recycling Days, as IT handles that and sets up shop around campus for convenient drop offs in the lobbies of different buildings. “What we wanted to do was to make it easier for people, to make it more likely that people would get rid of their technology in the right way,” Mazzarella says. “Rather than having to fill out the form manually by hand when someone drops things off, we now use a barcode scanner that reads the ID number on the yellow UMass Boston ID tags.” In total, 877 devices have been turned in during Tech Recycling Days events since the program began in Spring 2023, reinforcing UMass Boston’s commitment to sustainability.

Modernizing Classrooms

The IT Department at UMass Boston has a commitment to doing everything it can to ensure student success, while at the same time easing the lives of faculty and staff as much as possible. A key part of this mission involves consistently upgrading technology that has reached the end of its life cycle or for which better options have been developed. This past year, there were some exciting improvements to multiple rooms in University Hall, including room 1100—a 500-seat auditorium and the most utilized classroom space on campus.

A total of \$200,000 was spent on upgrading A/V controller systems and swapping out lamp projectors for laser ones across campus. The lamp projectors have a life of 2,000 to 3,000 hours, which meant yearly replacements at a cost of around \$800 each. The new projectors are both environmentally and financially beneficial. “The lasers have

a life expectancy of 20,000 to 30,000 hours, which would be over 10 years at 8 hours per day for 50 weeks,” explains John Jessoe, Director of Classroom Technology and AV Services. “The old lamps were also considered hazardous waste, so we are also helping the environment by not having to replace the lamps in these projectors every year.”

The new technology has not gone unnoticed by faculty who teach in these rooms. Dr. Joseph Cooper, Chair of the Sports Leadership & Administration program, noted a higher quality of images when teaching in UH 1100 this past year (even when the shades were up). The dependability and user-friendliness of the A/V controls also helped Dr. Cooper run a smooth classroom. “Definitely, as a professor, it gives you confidence to know that you have more tools at your disposal to engage students and enhance their learning outcomes,” he says.



The Student Worker Pipeline

Student workers in the IT Department receive intensive on-the-job training, and this—along with their familiarity with UMass Boston and proven track records—makes them especially strong candidates when full-time jobs become available. For these reasons, there is a long list of IT personnel who began as student employees, including **Shawn Reardon** (AV Office & Classroom Instructional Support Supervisor), **Paula Thorsland** (Director of Learning Design Services), **Marla Filoso** (Director of Systems), **Theresa Miller** (Technology Services Adoption Specialist), **Rocky Haggard** (Senior IT Service & Support Services), **John Mazzarella** (Assistant Vice Chancellor of IT Client Services) and many others. This past year, the IT Department hired two former student workers as full-time employees, who we want to recognize for exemplifying what it means to be a Star Performer.

SAYEED CHOWDHURY

Sayeed Chowdhury began working as a network engineer apprentice under the PACE program in 2020, and he excelled in this role up until his Spring 2024 graduation from UMass Boston. For his excellence, Chowdhury earned a number of recognitions—including an April 2024 Award of Excellence for Outstanding Student Leadership, an IT Student Appreciation Badge in April 2022, and IT Services Certificates of Appreciation in April 2019 and April 2024—as a student worker. “Sayeed has been heavily involved in the design, planning and implementation of all facets of the new campus network to include Edge, Core, distribution, server farm and Wi-Fi deployments. All while maintaining his full-time studies and classwork,” says Director of Network Services Jamie Soule.



According to Soule, UMass Boston received over 100 applications for the junior network engineer position Chowdhury now occupies—and he was demonstrably the finest candidate. “Sayeed has been a valued member of the network services team, and we are very happy he rejoined the IT department after his graduation and is continuing his contributions to the UMB IT department and the users we service on a daily basis,” Soule says. “His best qualities include his extremely patient attitude, ability to work with everyone he has met so far and his overall calmness in situations that may otherwise stress others out.”

For Chowdhury, being a student worker was integral in preparing him for this next step. “My apprentice program was designed to prepare me for professional roles, with the required skills and readiness to contribute immediately to the team,” he says. “Such experience benefits both the students and university by providing job opportunities and candidates who have already proven to be valuable and trusted resources for the team and university.”

ADAM SYLVESTRE

Adam Sylvestre began working at the IT Service Desk in his junior year at UMass Boston. He then became part of the PACE program in his senior year, which saw him working as an information security analyst in the Network Security Operations Center. When a job opened up in his direct area around the time of his Fall 2024 graduation, colleagues suggested that Sylvestre apply for the position. “When we opened his position, I had close to 75 applications and he stood out because he knew more than all of those 75 professionals who came in for that position. He stood out from the crowd,” says Wil Khouri, Assistant Vice Chancellor, Information Security Officer. “Our interviews are brutal – like, really brutal. He really did very well.”

To beat out the competition, Sylvestre utilized his knowledge of technological language and procedures, as well as the softer skills he developed as a PACE worker—such as emotional intelligence, critical thinking, patience, and resilience.

He started as an Information Security Operations Analyst in January 2024 and is now responsible for the cybersecurity program. Sylvestre’s responsibilities include managing abuse e-mail, looking for at-risk users, and dealing with e-mail-related incident response. The transition has gone very smoothly, but not simply because Sylvestre was a student worker. “He’s very punctual, he’s very thorough, he never leaves any stone unturned. He’s very accurate. Usually, if I see a security breach and I can reach him, he is very responsive no matter when it is. His communication skills are incredible,” Khouri says.

In addition to his other duties, Sylvestre also helps train students in the security office, which he finds especially rewarding having himself been a student worker. “I feel like my work here is a lot more impactful and helpful than it would be somewhere private,” he says. “I went here as a student—I am still a student, working on my master’s degree—and I feel a connection to the community.”



IT SERVICES DIVISION—MISSION, VISION, VALUES

Information Technology Services Mission Statement

Information Technology Services (ITS) provides a diverse population of students, faculty, and staff with reliable and secure technology, services, and solutions to continuously improve scholarship; teaching and learning; research; and business processes to enhance student success and support the mission of the university.

Vision Statement

To be a trusted partner in providing secure, transformative, and innovative Information Technology services to advance teaching, learning, research, and administrative practices through dynamic and adaptive customer service.

Statement of Values

Information Technology is committed to the values of:

- **Caring**—We interact with students, faculty, and staff with respect, empathy, and professionalism.
- **Inclusion**—We embrace our differences to provide the best service to a diverse UMass Boston community.
- **Innovation**—We value creativity and critical thinking, focusing on developing efficient, effective technology services and solutions.
- **Collaboration**—We work together to implement new services and technologies to solve problems and improve the quality of life for all.
- **Dedication**—We are committed to the mission of the university and the people we serve, and we work hard to ensure successful outcomes.
- **Excellence**—We strive to provide high-quality service and support to our community of students, faculty, and staff.