

# SSU BOLD

A Campus Unification and Modernization Project

Salem State University

## Letter from the President



John D. Keenan

Salem State University's (SSU's) history reflects the growth of its impact and its vital role in the Commonwealth and the local community. From its beginnings as a normal school to the large, diverse and comprehensive academic institution it is today, the university has remained true to the value of its founders, "education as the great equalizer." We are proud to be part of a public higher education system that places equity at the top of its agenda, with the goal to significantly raise the enrollment, attainment and long-term success outcomes among underrepresented student populations. SSU is poised to meet these goals and continually seeks a forward path, adapting to society's changing needs while ensuring the intellectual and economic well-being of the North Shore region of Massachusetts and beyond.

This is a momentous time in our 165-year history. While we face many challenges with a physical plant comprised of several facilities that are severely outdated or have outlived their purposes, we have prepared ourselves for this day by relocating portions of our South Campus programming and working with the Division of Capital Asset Management and Maintenance and the city of Salem to prepare the site for sale. We are also prepared to repurpose a vacant building on North Campus, our academic hub, that became available with the city's decision to move the Horace Mann Laboratory School off campus. The course for moving forward with our master vision is clearly charted ahead through SSU BOLD: A Campus Unification and Modernization Project (BOLD).

BOLD notably addresses the major capital needs of the university but also provides incredible, universal impact on our academic programs and the student experience as a whole. It right sizes our physical footprint and brings our campus community closer together, literally and figuratively. BOLD significantly improves our STEM and healthcare offerings by

providing students with the opportunity to study in modernized wet labs, simulation labs, computer labs and classrooms that will align their academic experiences with the current and future expectations of the workforce across our region and the Commonwealth. It also eliminates a sizable amount of deferred maintenance for our campus, allowing the university to focus its resources more effectively and efficiently than ever before.

The construction of new labs and the consolidation of our campus footprint will enable SSU to maximize undergraduate recruitment, retention, and completion in our high-demand science and healthcare programs, addressing the major needs identified for the North Shore's future workforce. Our existing labs are not only cramped and beyond repair, but they limit capacity and opportunities for research and the hands-on experiences our students deserve and need to be best qualified for the workforce. BOLD improves student access, equity, and success across academic programs through increased availability of labs for general education and support courses as well as increased opportunities for cross departmental collaboration.

If we are to be responsible stewards of this great institution founded on the principle of education for all, we must invest in BOLD. With Massachusetts known for its top notch education, we must ensure that every student in this region is afforded the opportunity to improve their social mobility, to find their passion, and to achieve their fullest potential professionally and personally in educational facilities that will place them on an equal playing field after graduation as compared to their counterparts throughout the state.

Our Board of Trustees has fully committed their support to BOLD through what I believe is the most important vote they will take in their tenure, and perhaps in mine as well. The vote to use university funds at this level for BOLD is unprecedented in the history of capital projects for the Massachusetts State University System, but a necessary one for the project to succeed. This vote demonstrates that we at Salem State University know this is the right course of action for our students and our region.

I am extraordinarily excited about the opportunities that BOLD presents to Salem State University and am confident there is no other project on our campus or in the Massachusetts Public Higher Education System that is more comprehensive or transformative than this one. The Department of Higher Education recently reported that all investments and initiatives on our campuses need to focus on the goal of growing degree attainment with equity. BOLD does just that and will position us well to serve the region and the state for years to come.

There is indeed a brighter day ahead for Salem State University.

Sincerely,

John D. Keenan President





### SSU BOLD

#### A Campus Unification and **Modernization Project**

SSU BOLD: A Campus Unification and Modernization Project (BOLD) addresses the major capital needs of the university identified in the Campus Master Vision (Sasaki, 2013) through its consolidation of our campus footprint and the construction and renovation of lab spaces for the life science and healthcare programs. BOLD establishes a compact and efficient campus core and maximizes programmatic synergies while streamlining operations. It also provides much needed modernized lab facilities that will give our students authentic lab experiences which correspond to those they will find in graduate school and the workforce. This exciting and transformative project enhances the overall campus experience for ALL students and positions us well to serve the North Shore region and prepare its future workforce.

As the most diverse state university in our system, SSU is already supporting the Department of Higher Education's equity goals. We attract most of our student body from the diverse, gateway communities located north and west of Boston, with our top feeder cities being Lynn, Salem and Peabody. In estimates for 2019, 44 percent of our first year students were Pell-eligible, and 40 percent identified as students of color. At SSU, our students build self-esteem and critical social capital by learning and living in a diverse, inclusive community. Employers value graduates with cultural competency skills and the ability to work effectively in teams. SSU is working diligently to leverage this asset.

Despite these successes and our ability to attract and educate underserved populations in our region, the demand for majors that will prepare our students for the future workforce of the North Shore, many of which require laboratory courses, far exceeds our current facilities. SSU routinely caps high-demand programs due to limited lab space and clinical placements. Moreover, lab support and general education science courses compound the urgent need to increase lab capacity and the need to bring academic departments in closer proximity to each other, eliminating the physical distance between programs that would otherwise collaborate.





In essence, BOLD takes a multipronged approach to achieving our capital goals in a way that utilizes SSU's and the Commonwealth's resources in the most efficient way for both time and budget. It includes the sale of South Campus; the renovation of the Horace Mann Building; the construction of a Meier Hall Addition, which will house much needed, new wet labs; and the repurposing of underutilized space in the Frederick E. Berry Library and Learning Commons for instruction.

The sale of South Campus allows SSU to unify our academic programs, physically bringing our community closer together and allowing for increased multidisciplinary collaboration that will improve student experience and retention. South Campus houses most of the programs in the Maguire Meservey College of Health and Human Services (MMCHHS) in a building that requires significant upgrades, especially in the nursing and occupational therapy (OT) simulation (SIM) labs. Their South Campus location is challenging both for students and faculty because of the physical distance, approximately one mile, and travel time between campuses. These programs are further constrained by capacity as the existing SIM lab spaces cannot accommodate student demand or

clinical experiences that could be achieved in updated facilities. In addition, the student housing located on South Campus is no longer needed as there is capacity in the residence halls on North and Central Campuses. In summary, the move will reduce operational costs and eliminate a significant amount of deferred maintenance and the need for future investments in buildings that have outlived their purpose; all while supporting the bottom line of BOLD through proceeds from the sale of South Campus.

The renovation of the Horace Mann Building makes this consolidation possible. This building was vacated in June of 2017, when the Salem Public Schools' Horace Mann Laboratory School moved off campus and into a building on Willson Street. The building has sat vacant since because of the significant amount of upgrades required to open it to university use. BOLD will allow for a complete renovation of this building and the opportunity to build new SIM labs for our healthcare disciplines. By relocating South Campus programming to North Campus, BOLD brings MMCHHS to our academic hub. Housing the majority of these programs in the Horace Mann Building provides students greater flexibility in their course scheduling, as they would no longer need to account for travel time between campuses when selecting

their courses each semester. It also allows for easier interdisciplinary collaborations for faculty in areas of mutual interest, such as cybercrime, green chemistry, crime mapping, and climate resiliency. Additionally, it provides spaces for much improved nursing and OT SIM labs with greater capacity.

The Meier Hall Addition supports the consolidation by providing increased capacity in, and easier access to, modernized lab space for the life science courses required of our healthcare majors. The addition brings seven new, state-of-the-art wet labs to SSU. It provides much needed, modernized and flexible lab space for biology and chemistry that cannot be retrofitted into the existing space built in the 1960s, while keeping all courses in these programs housed within the same building. The flexible design of the labs within the addition increases capacity for our science programs and allows for multiple programmatic uses, creating greater flexibility in course scheduling, student and faculty research, and alternative delivery methods. The addition also frees up space in Meier Hall where biology and chemistry courses are currently taught, increasing capacity for courses that require less specialized spaces, all while adding capacity for general education and healthcare support courses. Repurposing underutilized space in the Berry Library



and Learning Commons into four new flexible teaching spaces assists the project in two ways. First, it provides swing space for classes that will need to be relocated during the construction of the Meier Hall Addition. More importantly, however, it will accommodate the remaining South Campus programming, as well as other teaching and research activities, to make the full consolidation possible. Every department on campus will have access to these spaces and will benefit from having all of our academic programs within close proximity. This renovation will also present greater opportunities for faculty professional development and collaboration as the spaces will be flexible to meet those needs.

BOLD supports the growing demand for qualified, skilled workforces in the biotech, life science and healthcare industries in our region. The 2018 Northeast Labor Market Blueprint indicates that a key challenge for our region is that not enough young people are pursuing STEM degrees to keep up with job openings

and employer demand in our area. These concerns are compounded by an aging workforce in the region and an industry desire for a diverse workforce. The Blueprint identifies healthcare and social assistance as the largest and fastest growing industries in our region. Similar to the rest of the Commonwealth, the Northeast Region has seen a growth in healthcare related occupations since 2012, and projections in these areas suggest there will continue to be a demand for healthcare professionals in the years to come with a projected growth of 12 percent overall, roughly 10,770 jobs, by 2022.

The Massachusetts Biotechnology Council estimates that by 2023, there will be an additional 12,000 jobs in the biotech industry in the state. We have also heard from regional bioscience companies and membership groups that they have a hard time finding qualified employees, and many are reluctant to move to the North Shore because they are concerned they will not find the skilled workforce needed.



BOLD supports the growing demand for qualified, skilled workforces in the biotech, life science and healthcare industries in our region.



BOLD increases SSU's ability to meet these workforce challenges and provide students with academic and technical preparation that is directly comparable to the lab environments of the companies and healthcare systems where graduates are likely to work. It also provides SSU the opportunity to expand graduate level course offerings in these areas, and enables SSU to further partner with regional industries to provide employee training, certification programs, and university-provided lab services.

At SSU, we are educating the diverse biotech, life science, and healthcare workforces of the future. The percent of underrepresented students for fall 2019 in biology is 45.4 percent, chemistry is 48.8 percent, healthcare studies is 62.8 percent, nursing is 39.4 percent, and OT is 31.6 percent. Because many of our students stay on the North Shore after graduation, these students will help diversify the workforce of the region and the Commonwealth. However, our limited and outdated labs place our students at a disadvantage, because they are not able to learn in modern facilities that provide the authentic lab experiences they will find in the workforce or graduate school. Thus, the quantity and quality of current lab spaces pose challenges not only for our students but also for the future workforce of our region.

to meet these workforce challenges and provide students with academic and technical preparation that is directly comparable to the lab environments of the companies and healthcare systems where graduates are likely to work.

SSU's current science and SIM labs are insufficient to prepare today's students and place our diverse student body at a disadvantage as compared to their peers at our sister institutions which have seen significant facility upgrades in these areas. There are intangible gains to be realized from investing in new facilities that will pay dividends in maximizing undergraduate recruitment, retention, and completion; thus meeting the program demands of our students and the future workforce needs of the North Shore while providing better and equitable avenues to help underrepresented students improve their social mobility.



### Master Vision

Completed in July 2013, the Salem State University (SSU) Campus Master Vision established a plan for the university's presence in the greater North Shore region—a plan rooted in its academic mission and one that advances its role in community and economic development. The Campus Master Vision builds on and extends the ideas originally communicated in the 2007 Campus Master Plan. Significant deferred maintenance and an urgent need for modernized lab facilities have been consistently documented issues in each of the planning studies and were verified in a recent Readiness Study completed in 2019.

These studies, combined with the unprecedented opportunity of a vacant building on our academic hub, led to SSU BOLD: A Campus Unification and Modernization Project (BOLD). The four key principles that governed the 2013 plan remain intact through BOLD: flexibility, connectivity, identity and community. These principles reflect the university's aspirations to establish a compact and efficient campus core that maximizes programmatic synergies and consolidates SSU's footprint within its Central and North Campuses.

Since completion of the 2007 and 2013 planning efforts, SSU has successfully completed numerous projects to improve both the academic and student experience while addressing deferred maintenance issues within aging buildings and infrastructure. Some of these projects were completed in partnership with the Division of Capital Asset Management and Maintenance (DCAMM), including full state funding for the Frederick E. Berry Library and Learning Commons and partial state funding (roughly 27.5 percent) for the Sophia Gordon Center for Creative and Performing Arts renovation. Other projects were completed in collaboration with the Massachusetts State College Building Authority (MSCBA), which issued bonds that are repaid by student fees, including the Harold E. and Marilyn J. Gassett Fitness Center, Viking and Marsh Residence Halls, and the North Campus Parking Garage.

SSU has also funded various leases and fit-outs to accommodate administrative and academic needs with operating funds. All of these projects demonstrate a strong commitment to implementing the Campus Master Vision and exhibit the university's willingness to contribute its own funds toward making the vision a reality. The SSU Board of Trustees strengthened this commitment with a vote in favor of supporting SSU BOLD through a combination of university cash and debt.

BOLD is the highest priority project for the university and closely aligns with our academic plan and the needs of the Commonwealth's workforce. The current science facilities in Meier Hall limit our ability to meet the demand of STEM courses both for science majors and for our healthcare disciplines as well as general education requirements. The 2013 Campus Master Vision plan documents the hyper-utilization of Meier Hall labs, both from a seat fill rate (often 100 percent) and room use rate (52 - 100 percent), well in excess of DCAMM's space standards.

BOLD is not only a high priority in terms of academic need but is also the highest priority deferred maintenance project for SSU, and perhaps for any other institution in the State University System. The sale of South Campus eliminates a total of 257,000 gross square feet (GSF) and \$80,465,000 in deferred maintenance; and 139,240 GSF and \$43,745,000 in deferred maintenance for academic spaces alone. The divestment of South Campus represents a significant opportunity for SSU and the Commonwealth. Investing in deferred maintenance in this property would only keep it operational in its current capacity and would not account for renovations that would bring a former parochial elementary school to an expanded, modern healthcare laboratory building. The isolation of this area also complicates class scheduling, transportation and parking. Rather than invest money to maintain inadequate space, the university would like the Commonwealth to divest from this campus and invest in BOLD.

BOLD purposely meets our current academic demands and industry standards, as recommended by DCAMM studies in 2007, 2013, 2015 and 2019 and Sightlines 2017.



## Meeting the Needs of Our Region's Workforce

BOLD's programmatic focus on the life and physical sciences aligns with the high-skilled workforce needs of the North Shore region. The 2018 Northeast Labor Market Blueprint states that healthcare is facing significant workforce development challenges. Additionally, the North Shore is seeing an increase in the workforce needs of the life science industry, which includes lab technicians, lab technologists and biological technicians.

The following are estimates of SSU alumni who are already employed in the biotech, life science and healthcare industries overall and those in the Boston area specifically:

INDUSTRY	TOTAL ALUMNI	TOTAL ALUMNI BOSTON AREA
Biotechnology	561	505
Chemicals	114	98
Hospital and Health Care	3,934	3,293
Medical Devices	298	252
Medical Practices	408	335
Pharmaceuticals	380	305
TOTAL	5,695	4,788

With 20.5 percent of the 200 largest employers in Essex County as part of the healthcare and social assistance industry, long term occupational projections for the North Shore see significant increases to 2026 for nurse practitioners (28.6 percent), occupational therapists (16.7 percent), and registered nurses (15 percent). Additionally, the Massachusetts Biotechnology Council estimates that by 2023, there will be an additional 12,000 jobs in the biotech industry in Massachusetts. At SSU we are educating a diverse, future STEM workforce for the region as many of our students stay on the North Shore after graduation.

The following are the top 25 biotech, life science and healthcare companies that employ our alumni:

Massachusetts General Hospital         263           North Shore Medical Center/Partners Healthcare*         250           Lahey Hospital and Medical Center         200           Brigham and Women's Hospital         142           Partners HealthCare (*may include NSMC)         140           Boston Children's Hospital         102           Lahey Health Behavioral Services         100           Beverly Hospital         94           Beth Israel Deaconess Medical Center         74           Boston Medical Center         70           Winchester Hospital         64           Lahey Health         50           CVS Health         49           Hallmark Health System         42           Dana-Farber Cancer Institute         39           Sanofi Genzyme         37           Philips         28           Tekeda Pharmaceuticals (includes former Shire)         28           Cell Signaling Technology         26           Pfizer         21           Millipore Sigma         20           Biogen         18           Thermor Fisher Scientific         12           Abiomed         11           New England Biolabs         10	COMPANY	ALUMNI EMPLOYEES
Lahey Hospital and Medical Center         200           Brigham and Women's Hospital         142           Partners HealthCare (*may include NSMC)         140           Boston Children's Hospital         102           Lahey Health Behavioral Services         100           Beverly Hospital         94           Beth Israel Deaconess Medical Center         74           Boston Medical Center         70           Winchester Hospital         64           Lahey Health         50           CVS Health         49           Hallmark Health System         42           Dana-Farber Cancer Institute         39           Sanofi Genzyme         37           Philips         28           Takeda Pharmaceuticals (includes former Shire)         28           Cell Signaling Technology         26           Pfizer         21           Millipore Sigma         20           Biogen         18           Thermo Fisher Scientific         12           Abiomed         11	Massachusetts General Hospital	263
Brigham and Women's Hospital       142         Partners HealthCare (*may include NSMC)       140         Boston Children's Hospital       102         Lahey Health Behavioral Services       100         Beverly Hospital       94         Beth Israel Deaconess Medical Center       74         Boston Medical Center       70         Winchester Hospital       64         Lahey Health       50         CVS Health       49         Hallmark Health System       42         Dana-Farber Cancer Institute       39         Sanofi Genzyme       37         Philips       28         Takeda Pharmaceuticals (includes former Shire)       28         Cell Signaling Technology       26         Pfizer       21         Millipore Sigma       20         Biogen       18         Thermo Fisher Scientific       12         Abiomed       11	North Shore Medical Center/Partners Healthcare*	250
Partners HealthCare (*may include NSMC)         140           Boston Children's Hospital         102           Lahey Health Behavioral Services         100           Beverly Hospital         94           Beth Israel Deaconess Medical Center         74           Boston Medical Center         70           Winchester Hospital         64           Lahey Health         50           CVS Health         49           Hallmark Health System         42           Dana-Farber Cancer Institute         39           Sanofi Genzyme         37           Philips         28           Takeda Pharmaceuticals (includes former Shire)         28           Cell Signaling Technology         26           Pfizer         21           Millipore Sigma         20           Biogen         18           Thermo Fisher Scientific         12           Abiomed         11	Lahey Hospital and Medical Center	200
Boston Children's Hospital         102           Lahey Health Behavioral Services         100           Beverly Hospital         94           Beth Israel Deaconess Medical Center         74           Boston Medical Center         70           Winchester Hospital         64           Lahey Health         50           CVS Health         49           Hallmark Health System         42           Dana-Farber Cancer Institute         39           Sanofi Genzyme         37           Phillips         28           Takeda Pharmaceuticals (includes former Shire)         28           Cell Signaling Technology         26           Pfizer         21           Millipore Sigma         20           Biogen         18           Thermo Fisher Scientific         12           Abiomed         11	Brigham and Women's Hospital	142
Lahey Health Behavioral Services         100           Beverly Hospital         94           Beth Israel Deaconess Medical Center         74           Boston Medical Center         70           Winchester Hospital         64           Lahey Health         50           CVS Health         49           Hallmark Health System         42           Dana-Farber Cancer Institute         39           Sanofi Genzyme         37           Phillips         28           Takeda Pharmaceuticals (includes former Shire)         28           Cell Signaling Technology         26           Pfizer         21           Millipore Sigma         20           Biogen         18           Thermo Fisher Scientific         12           Abiomed         11	Partners HealthCare (*may include NSMC)	140
Beverly Hospital         94           Beth Israel Deaconess Medical Center         74           Boston Medical Center         70           Winchester Hospital         64           Lahey Health         50           CVS Health         49           Hallmark Health System         42           Dana-Farber Cancer Institute         39           Sanofi Genzyme         37           Philips         28           Takeda Pharmaceuticals (includes former Shire)         28           Cell Signaling Technology         26           Pfizer         21           Millipore Sigma         20           Biogen         18           Thermo Fisher Scientific         12           Abiomed         11	Boston Children's Hospital	102
Beth Israel Deaconess Medical Center       74         Boston Medical Center       70         Winchester Hospital       64         Lahey Health       50         CVS Health       49         Hallmark Health System       42         Dana-Farber Cancer Institute       39         Sanofi Genzyme       37         Philips       28         Takeda Pharmaceuticals (includes former Shire)       28         Cell Signaling Technology       26         Pfizer       21         Millipore Sigma       20         Biogen       18         Thermo Fisher Scientific       12         Abiomed       11	Lahey Health Behavioral Services	100
Boston Medical Center       70         Winchester Hospital       64         Lahey Health       50         CVS Health       49         Hallmark Health System       42         Dana-Farber Cancer Institute       39         Sanofi Genzyme       37         Philips       28         Takeda Pharmaceuticals (includes former Shire)       28         Cell Signaling Technology       26         Pfizer       21         Millipore Sigma       20         Biogen       18         Thermo Fisher Scientific       12         Abiomed       11	Beverly Hospital	94
Winchester Hospital64Lahey Health50CVS Health49Hallmark Health System42Dana-Farber Cancer Institute39Sanofi Genzyme37Philips28Takeda Pharmaceuticals (includes former Shire)28Cell Signaling Technology26Pfizer21Millipore Sigma20Biogen18Thermo Fisher Scientific12Abiomed11	Beth Israel Deaconess Medical Center	74
Lahey Health50CVS Health49Hallmark Health System42Dana-Farber Cancer Institute39Sanofi Genzyme37Philips28Takeda Pharmaceuticals (includes former Shire)28Cell Signaling Technology26Pfizer21Millipore Sigma20Biogen18Thermo Fisher Scientific12Abiomed11	Boston Medical Center	70
CVS Health       49         Hallmark Health System       42         Dana-Farber Cancer Institute       39         Sanofi Genzyme       37         Philips       28         Takeda Pharmaceuticals (includes former Shire)       28         Cell Signaling Technology       26         Pfizer       21         Millipore Sigma       20         Biogen       18         Thermo Fisher Scientific       12         Abiomed       11	Winchester Hospital	64
Hallmark Health System 42 Dana-Farber Cancer Institute 39 Sanofi Genzyme 37 Philips 28 Takeda Pharmaceuticals (includes former Shire) 28 Cell Signaling Technology 26 Pfizer 21 Millipore Sigma 20 Biogen 18 Thermo Fisher Scientific 12 Abiomed 11	Lahey Health	50
Dana-Farber Cancer Institute39Sanofi Genzyme37Philips28Takeda Pharmaceuticals (includes former Shire)28Cell Signaling Technology26Pfizer21Millipore Sigma20Biogen18Thermo Fisher Scientific12Abiomed11	CVS Health	49
Sanofi Genzyme37Philips28Takeda Pharmaceuticals (includes former Shire)28Cell Signaling Technology26Pfizer21Millipore Sigma20Biogen18Thermo Fisher Scientific12Abiomed11	Hallmark Health System	42
Philips28Takeda Pharmaceuticals (includes former Shire)28Cell Signaling Technology26Pfizer21Millipore Sigma20Biogen18Thermo Fisher Scientific12Abiomed11	Dana-Farber Cancer Institute	39
Takeda Pharmaceuticals (includes former Shire)28Cell Signaling Technology26Pfizer21Millipore Sigma20Biogen18Thermo Fisher Scientific12Abiomed11	Sanofi Genzyme	37
Cell Signaling Technology26Pfizer21Millipore Sigma20Biogen18Thermo Fisher Scientific12Abiomed11	Philips	28
Pfizer21Millipore Sigma20Biogen18Thermo Fisher Scientific12Abiomed11	Takeda Pharmaceuticals (includes former Shire)	28
Millipore Sigma 20 Biogen 18 Thermo Fisher Scientific 12 Abiomed 11	Cell Signaling Technology	26
Biogen 18 Thermo Fisher Scientific 12 Abiomed 11	Pfizer	21
Thermo Fisher Scientific 12 Abiomed 11	Millipore Sigma	20
Abiomed 11	Biogen	18
	Thermo Fisher Scientific	12
New England Biolabs 10	Abiomed	11
	New England Biolabs	10

## Science Spotlights

#### Alumni Spotlight Jake Cotter '12 and Dakota Hamill '12

Jake Cotter '12 and Dakota Hamill '12 met while taking chemistry courses at Salem State University. In 2015, these alumni established Prospective Research Inc., a Beverly-based startup company that develops novel disease management solutions for the aquaculture industry. Cotter and Hamill are working on creating feed incorporated preventative disease management solutions for the industry that completely remove the need for antibiotics and medicated feed in fish.

Cotter said, "We looked at aquaculture because disease is the biggest problem in the industry, and it is extremely regulated, meaning you can't use antibiotics in farm raised fish. We figure out the chemical language to speak to bacteria to get them to turn on genes."

Cotter and Hamill often receive lab support from local college students, and since the company's inception, these alumni have mentored many Salem State students. Hamill and Cotter hire interns from their alma mater so that Salem State students gain access to modern lab resources and equipment that are not available in the Meier Hall labs from the 1960s.

"Prospective Research has several research projects currently under development that we would love to collaborate with both SSU's biology and chemistry departments on," said Cotter. "There is no doubt in my mind that newer, state-of-the-art facilities will not only increase our ability to collaborate with and hire SSU students, but will span throughout the Commonwealth. The fact that people are graduating in the sciences

"SSU students by no means lack the curiosity, drive and grit to become highly valuable contributors and leaders in the industry, but unfortunately what they do lack is an ecosystem of quality labs and industryrelevant equipment on campus that reflect how the majority of the biotech world operates," Cotter stated.

Cotter and Hamill hope to continue offering Salem State students internships as their company changes, grows and improves overtime. They see great potential for increased partnership with the university if the lab facilities matched the quality of the programming, faculty and students.

from SSU, so close to Boston, a bio hub, and have to deal with such outdated equipment is just not right."





#### Student Spotlight: Keena Nicholas '20

Recognizing the need to create a pipeline for the life science and biotech workforce and the importance of providing opportunities in these industries to a diverse population, the Massachusetts Biotechnology Council partnered with the Massachusetts Life Sciences Center to create Project Onramp. This internship program matches talented, first-generation students and students from low-income backgrounds with well-paid summer internships in the life science industry.

Keena Nicholas '20, an SSU chemistry major, was part of the inaugural class of interns in the summer of 2019. She recently completed a paid internship at Biogen, the Cambridge-based, multinational biotech company.

"I have eight siblings, a big family. I'm fun, energetic, and eager to learn and ready to graduate. Oh, and I love chemistry," Nicholas said.

Project Onramp helps high-achieving, passionate students like Nicholas start their careers in the life sciences by bridging the opportunity gap for promising students who may not have traditionally had access to these companies or internships.

"Project Onramp helped me decide that chemistry is my thing," Nicholas stated. "When I went to my internship at Biogen, I never thought it was a job. I was excited to go there every day. I fit in and just enjoyed my experience in the lab."

After graduating in December 2020, Nicholas plans to pursue a career in the life science industry and a doctorate degree in either forensic chemistry or organic chemistry.

## Institutional Profile

#### **About Salem State University**

Located just 15 miles north of Boston, Salem State University (SSU) is one of the largest and most diverse state universities in the Commonwealth of Massachusetts and is an important partner in the economic, cultural and intellectual vitality of the greater north-of-Boston region. Situated in the historic seacoast city of Salem, Massachusetts on more than 115 acres and five campuses, Salem State provides a diverse community of over 7,500 undergraduate and graduate students, a high quality, student-centered education; one that prepares them to contribute responsibly and creatively to a global society and to serve as a resource to advance the region's cultural, social and economic development.

The university offers 32 undergraduate degree programs in the liberal arts and sciences, health and human services, education, and business, along with graduate programs that offer degrees in 24 fields such as education, science, humanities, business, criminal justice, and nursing, among others. The university also has a continuing education division that offers both credit and non-credit programs.

SSU is known for the academic strength of its faculty who represent a wide variety of academic institutions including the most prestigious in the country and the world. The university was named a Top Producer of U.S. Fulbright Scholars in 2011 and for the 2016-2017 academic year. Faculty hold a deep commitment to teaching and learning and pride themselves on

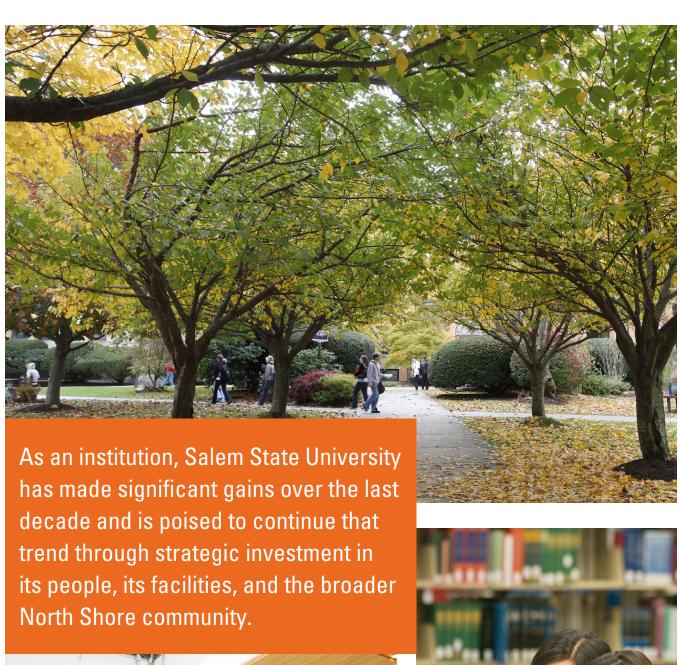
connecting with students at an individual level. Student learning opportunities are personal and collaborative, yet large enough to broaden students' understanding of their world.

The university's students hail from 38 states and 57 countries. The university is proud that an estimated 40 percent of its 2019 freshman class self-identified as being students of color. Salem State has over 65 student groups and clubs, 15 varsity teams along with intramural sports, and hundreds of student activities scheduled throughout the year. The university has a nationally award-winning residence life program. One-third of the undergraduate degree-seeking population, including two-thirds of the freshman class, lives on campus.

SSU leads the State University System in enrollment for biological and biomedical sciences; physical sciences; and health professions and related programs, which are major regional workforce drivers. For 15 years, SSU enrolled 26.5 percent of all courses in these areas, a proportion that exceeds all state universities in our system. As noted earlier, SSU is educating the future diverse STEM workforce with significant percentages of our underrepresented students enrolling in life science and healthcare courses. Because many of our students stay on the North Shore after graduation, these students will help diversify the workforce of the region and the Commonwealth.









## Points of Pride

#### The Comprehensive University of the North Shore—

SSU is the largest institution of higher education on the North Shore and the only four-year, public university in the region. The vast majority of our students come from Massachusetts with almost 70 percent coming from within a 20 mile radius. As a public good, SSU aligns our programs with the workforce needs of the state, understanding that our graduates will need to be prepared to adapt to future industry needs. SSU is a major contributor to the region's economy; contributing in the number of people we attract to the North Shore to live, learn and work, and by supporting the region's workforce, across all industries, with our talented alumni.

Diverse Community—SSU is the most diverse public state university in the Commonwealth with an estimate of 40 percent of first-year students in 2019 identifying as students of color and about one third identifying as first-generation college students. Over the last 10 years, SSU enrolled 21,192 students of color, the largest percentage of all students of color enrolled in the State University System (22 percent); and enrolled the largest percentage of Latinx students in the system (24.5 percent). We also lead our system in the percentage of underrepresented students enrolled in the biological, biomedical, and physical sciences and healthcare related programs with 34 percent of all students in the system pursuing these programs at SSU. We have successfully increased diversity and sustained the bar for entry, while still significantly increasing completion rates and reducing achievement gaps. Known for its culture of inclusion, SSU aligns our core mission with the equity focus of the Department of Higher Education.

Student Success—SSU has worked diligently to improve student progression, and our six-year graduation rate has risen a record 21 percentage points over the last 11 years, placing us among the top seven percent of four-year institutions nationwide for graduation rate increases. Much of this success is due to the hard work of faculty, staff, and most of all, students, along with community engagement around equity and inclusion, as well as student support programming. SSU has closed the achievement gap of our African American students who have graduated 4.97 percent and 2.6 percent higher than their White peers during the last two years. There has also been

a significant increase in the six-year graduation rate for African American students over the past decade with the most recent data showing a rate of 63.2 percent. Our one-year retention rate for these students continues to rise and recently hit 84.4 percent, which is higher than the institutional average. For our Latinx students, the most recent data shows that the six-year graduation rate has also risen significantly over the past decade to 52.8 percent.

Fulbright Scholars—In the past two decades, SSU has had 20 Fulbright Scholars and four Fulbright Specialists. Three of our students have also received this distinction. Our faculty, staff, and students have been awarded Fulbright grants to research and teach in places like India, Chile, Liberia, Finland, United Kingdom, Jordan, Mexico, Greece, India, Egypt, Vietnam, Kyrgyzstan, Ukraine, Korea, Russia, Italy, and Nicaragua. The Fulbright Program is the flagship international educational exchange program sponsored by the U.S. government and is designed to build lasting connections between the people of the United States and the people of other countries. Participating governments and host institutions, corporations, and foundations around the world also provide direct and indirect support to the program, which operates in over 160 countries worldwide.

Civic Engagement - Embedded in the very fabric, culture, and history of SSU is civic engagement. Our Center for Civic Engagement is responsible for developing and supporting programs that connect SSU students, faculty, staff and alumni to the greater community and providing students with experiences that will help them become productive and engaged citizens of the world. To accomplish this, the Center focuses on four main areas: advocacy, civic learning, community, and political engagement; the results of which can be seen through micro and macro-level social change. In 2019, Salem State was named to Washington Monthly's "2019 Best Colleges for Student Voting." Amid national reports of an increase in college student voting, SSU's mid-term election student voter rate in 2018 reached 47 percent, exceeding the 39 percent national average, nearly doubling since the last mid-term cycle in 2014, and earning the university a gold seal from the All-In Campus Democracy Challenge.



352 Lafayette Street Salem, MA 01970 salemstate.edu