

**State of New Hampshire  
Governor's Hearing on the Operating Budget  
LOB Rooms 306-308  
November 16, 2018**

**UNIVERSITY SYSTEM OF NEW HAMPSHIRE**

The University System of New Hampshire is the state's primary provider of a highly educated workforce and graduates the largest number of science and engineering undergraduates in New Hampshire, providing critical support for New Hampshire's bioscience industry and the expanding need for high-skilled health care workers. Graduates of the four institutions that comprise the University System have proven to be highly valued by New Hampshire companies such as BAE, Medtronic, Fidelity, Lonza, and many more. USNH also serves as one of the state's largest economic engines, with an annual impact of over \$2 billion.

USNH will leverage its own borrowing capacity to the extent possible to maximize the State's return on investment. USNH is already investing \$6 million in new bioscience labs in Manchester in support of the ARMI initiative and has developed an RN-BSN degree completion program at Granite State College that ensures every CCSNH nursing student has an affordable four-year degree pathway. This nursing completion program is offered entirely online as well as on-site, and a second completion option is being launched at Keene State in partnership with River Valley Community College to give students a residential option should they choose it. USNH was able to launch these initiatives without seeking additional State dollars, but by leveraging State investment we expect to be able to do even more to double nursing capacity at both UNH and PSU, launch a precision optics program, and offer new programs in automation and robotics.

A strong focus on cost containment through the leveraging of economies of scale across our four institutions has allowed us to keep net tuition increases below the cost of inflation in spite of flat State funding for the past five years. The State investment USNH does receive covers State mandates and offsets tuition for New Hampshire residents, helping to keep New Hampshire students in New Hampshire. USNH cost management has led to USNH institutions providing the lowest cost-of-attendance options for four-year college-going students in New Hampshire. USNH high graduation rates also ensure that the State maximizes its return on investment further, with State cost per graduate lower than any other public system in New England (two-year or four-year).

The marginal increase in the base appropriation being sought is intended to support our ability to continue efforts such as the Granite Guarantee (recently expanded to incoming New Hampshire Community College graduates), while the primary investment increase being sought will be strategically targeted to STEM-related workforce needs such as increased nursing capacity, addiction counselor education, and advanced manufacturing programs. This strategic ask is unique in that it is an initiative that leverages all four USNH institutions in an effort to have statewide impact. It is also an initiative designed to build long-term capacity with one-time funding. This ask is unlike any previous operating request and has been designed with significant industry input and the engagement of the Governor's Office so that it will have maximum impact.

New Hampshire faces significant workforce challenges that includes a skills gap leading to a growing number of unfilled advanced manufacturing, bioscience, and health care positions. Employment Security projections indicate that by 2024 New Hampshire will need, for example, 25 percent more biomedical engineers, 17 percent more biochemists, 13 percent more biological technicians, and 18.5 percent more employees in the health care industry, which is indicative of the greater workforce deficit.

USNH is committed to doing its part to address state economic and workforce needs by leveraging the strengths of its four institutions. This request will allow us to support a vibrant business and industry environment with greater impact, which is reflected in the support of our State investment request from the BIA and industry leaders across the state.

#### USNH Operating Appropriation Request FY20 and FY21

<i>(dollars in millions)</i>	<b>FY18</b>	<b>FY19</b>	<b>Total</b>	<b>FY20</b>	<b>FY21</b>	<b>Total</b>
Ongoing State Operating Support	\$ 81	\$ 81	\$ 162	\$ 83	\$ 84	\$ 167
Non-recurring Strategic Investment				12	15	27
			<b>Total Request</b>	\$ 95	\$ 96	\$ 194

#### Non-recurring Strategic Investment Allocation

<i>(dollars in millions)</i>	<b>FY20</b>	<b>FY21</b>	<b>Total</b>
UNH	\$ 4	\$ 5	\$ 9
PSU	4	5	9
KSC	4	5	9
<b>Total Request</b>	\$ 12	\$ 15	\$ 27

#### Strategic Investment Details

	<i>(dollars in thousands)</i>	<b>FY20</b>	<b>FY21</b>
<b>UNH</b>			\$ 9,000
Significantly increasing nursing capacity			
<b>PSU</b>			
Health and Human Enrichment Cluster		\$ 1,500	
Center for Excellence in Health Sciences		1,475	
Strength and Conditioning Lab		500	
Robotics and Electromechanical Technology Program and Robotics Makerspaces		1,875	
Retrofit learning spaces		600	
Integrated Cluster approach in PSU education programs		650	
Expand Cluster projects with North Country business/communities		500	
Career Center		850	
Scholarships for student internships		1,050	
			\$ 9,000
<b>KSC</b>			
Business Partnership Hub		\$ 7,500	
Launch workforce programs impacting Southwest region		1,500	
			\$ 9,000
<b>Total Biennium One-Time Strategic Investments</b>			\$ 27,000

USNH Capital Appropriation Request 2020-2025

<i>(dollars in millions)</i>	Prior to FY20 USNH	FY20-21		FY22-23		FY24-25		TOTALS
		State	USNH	State	USNH	State	USNH	
UNH Biological Sciences	\$ 3.4	\$ 10.0	\$ 20.0	\$ 10.0	\$ 27.6	\$ 15.0		\$ 86.0
PSU Hyde Innovation and Entrepreneur Center	0.5	2.0	4.0	2.5	4.0		4.0	17.0
KSC Elliot Student Services Center			2.7	2.5	8.0	2.0	4.8	20.0
<b>Total Request</b>	<b>\$ 3.9</b>	<b>\$ 12.0</b>	<b>\$ 26.7</b>	<b>\$ 15.0</b>	<b>\$ 39.6</b>	<b>\$ 17.0</b>	<b>\$ 8.8</b>	<b>\$ 123.0</b>

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**UNIVERSITY OF NEW HAMPSHIRE  
Strategic Investment Request**

Good morning Governor and members of the legislature,

I want to start by saying how proud I am to be serving as UNH's president. I also want to begin by letting you know that I intend to work hard on behalf of UNH to strengthen the relationship between the university and our elected officials here in Concord. I want you all to view UNH as critical partner to help to move New Hampshire forward.

As you well know, state demand for nurses and behavioral health specialists is increasing as health care providers address the opioid crisis, mental health, our aging population, and other health care challenges. The Bureau of Labor Statistics projects a 15 percent growth by 2026 for Registered Nurses, 31 percent for Nurse Practitioners, and 23 percent for Substance Abuse and Behavioral Disorder Counselors. In fact, all health care sectors forecast strong growth, the highest being in the ambulatory setting. Nurses prepared to treat patients in specialty areas such as intensive care, surgical, post-anesthesia, and home-based care will be critical.

Since 2014, the UNH bachelor's in Nursing program has grown by 33 percent. We have added two new online specialty programs—a post-master's Mental Health Nurse Practitioner certificate and a doctor of Nursing Practice degree—and have worked diligently to expand our clinical placements across the state. But more needs to be done to matriculate enough licensed professional nurses who can work in a variety of emerging and specialty practice settings.

The \$9 million State request, which UNH will bolster with an additional \$3 million in institutional funds, will be used to address the two major roadblocks to further program growth: facilities and clinical placements. Specifically, we will:

1. construct a state-of-the-art patient simulation center;
2. bring online a TelePractice Center to expand program and service reach and access;
3. develop interprofessional instructional spaces to teach team-based health care; and
4. hire faculty and clinical staff to support the programs.

State support for this Health Sciences Initiative will allow us to double nursing enrollment through a combination of existing program growth and the development of new programs in Psychiatric Mental Health and Acute Care.

Importantly, these funds will allow us to further leverage federal grants the university has received in recent years, including:

- funding to train 116 master’s-level Social Work and Occupational Therapy students for positions in underserved areas of the state;
- a grant to train Nurse Practitioners in Medicated Assisted Treatment, which combines behavioral therapy and medications to treat substance use disorders; and
- resources to support the infrastructure related to the TelePractice Center and for programs that use the technology to increase community capacity for medicated assisted treatment and to address antenatal substance use.

UNH and the University System are committed to addressing the state’s critical workforce needs. This initiative, supported by a one-time request of the State, will allow UNH to significantly increase our capacity, expand our reach, and embrace new technologies in a way that will benefit our students, graduates, and New Hampshire’s medical community and patients for generations to come.

Thank you for your time and I would be happy to answer any questions about our request.

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**GRANITE STATE COLLEGE  
Strategic Investment Request**

Granite State College serves a unique role within USNH, focusing on meeting the needs of New Hampshire's working adults for whom completing a college degree—whether a bachelor's in Nursing, IT, or Accounting or a master's in Project Management or Healthcare—creates new opportunities to participate more fully in New Hampshire's evolving economy.

Although each student who comes to Granite State College is unique and represents a particular set of circumstances, there are some common attributes that describe them and some common needs that unite them. Ninety percent are working—the majority are working full-time, and 80 percent of them are working right here in New Hampshire. More than 80 percent come to us as transfer students, with approximately one in three coming to us through the Community College System of New Hampshire. Almost 60 percent of our students are at least 30 years of age and many carry the weight of family and community responsibilities as well as those of student and employee on their shoulders. Despite the fact that almost all of our students are employed, nearly 40 percent of our undergraduate students are Pell-eligible. For all of these reasons, Granite State College looks for every opportunity to help our students to find the most affordable paths we can offer to a high-quality education that aligns with their academic and career interests.

One illustration of this commitment is the extent to which Granite State College values workplace-based learning. A GSC student can earn up to half of the credits required for a degree through documented college-level learning outcomes that have been achieved outside of a college classroom. The most familiar examples of this are found among our students who are veterans and who receive college credit for the education and training provided by various branches of the United States Armed Forces; however, GSC also awards college credit for documented learning associated with a myriad of employer- and industry-sponsored programs in business and finance, health care, and hospitality (among other areas). Within New Hampshire, and specific to support for employees of the State and its municipalities, GSC regularly validates and awards credit for education and training provided by the New Hampshire Division of Personnel Management, New Hampshire Department of Education, New Hampshire Association of Counties, New Hampshire Police Standards and Training Council, and New Hampshire Fire Standards and Training Council. A portion of the USNH request for the one-time appropriation in the upcoming biennium is to expand the scope of our validations for workplace-based learning, particularly in the areas of medical and behavioral health and human services, but also in targeted areas of opportunity that align with other areas of New Hampshire's economy, to create opportunities for students and to strengthen the workforce for New Hampshire's employers.

A second illustration of GSC’s commitment to affordable and efficient degree completion opportunities for New Hampshire’s working adults—and their employers—is reflected in the RN-BSN degree completion program mentioned in the chancellor’s remarks. Through this program, offered on behalf of the University System through GSC, we provide CCSNH graduates who have earned their associate’s degree in Nursing and their RN credential through CCSNH with the opportunity to complete their four-year degree in Nursing at the same tuition rate as they would pay at CCSNH institutions. This concept has been successful with Granite State College now serving more than 200 students through our Nursing degree programs, and we believe that it can be applied to address a broader range of New Hampshire’s health care workforce needs. With a modest one-time investment requested in the appropriations request for the upcoming biennial budget, GSC seeks to expand this same affordable option to CCSNH graduates who have earned associate’s degrees or certificates in other allied health programs.

Finally, in support of an ongoing USNH-wide effort to identify and incorporate “open educational resources”—academically appropriate textbooks and course materials that complement our curricula and that can be made available to students without cost—GSC has requested one-time funding to expand this effort to include CCSNH institutions, along with USNH institutions, in an effort to lessen the impact of high textbook costs have on students’ direct costs and the resulting debt associated with earning a college degree.

Although all three of the elements in this portion of the USNH appropriation request emanate directly from GSC’s unique mission, each of them also has the potential to serve all four USNH institutions as well as to be of value to students enrolled in the seven CCSNH institutions, furthering our collective interest in creating more seamless opportunities for New Hampshire students and better support for New Hampshire’s economic future.

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**PLYMOUTH STATE UNIVERSITY  
Strategic Investment Request**

Three years ago, Plymouth State University embarked on a journey to reinvent itself and to increase its linkages with, and to heighten its impact on, the state of New Hampshire. The University's approach to reinvention is closely aligned with the state's need for new workforce development and is driven by the need for new skill sets that involve a strong focus on problem-solving and STEM programs. Plymouth's transformation toward Integrated Clusters directly addresses the needs of the state's businesses. In fact, each Cluster relates to New Hampshire's economic priorities through a multifaceted approach that links the state's workforce needs directly to our educational process. It is a multidisciplinary way of thinking, which presents authentic learning experiences and addresses real issues faced by organizations, businesses, communities, and government.

The metamorphosis of Plymouth State into Integrated Clusters has necessitated a change in our organization and focus. It has required PSU to shift both institutional priorities and investments into programs and tools that directly advantage our students and state. Clusters have been established and we are now building Open Laboratory spaces—areas in which students, programs, faculty, and external partners can come together and work on real-world problems, developing solutions that support student education, business development, and strong connections between students, our state, and business.

Our request is built on an integrated workforce strategy, linking nine key initiatives that are transformative to the North Country and Lakes Region and are designed to bring economic prosperity to the rest of the state. A STEM workforce focus connects the technology and health needs of the region to development in the southern parts of the state in biotechnology, medical devices, advanced manufacturing, ARMI, and robotics. The integrated workforce strategy provides for additional support to our students and businesses through enhanced career advising—linking the project-based focus of the Clusters with the workforce needs of companies. This is critical, as is providing scholarships for internships, as 45 percent of our students are first-generation college-goers and, among the USNH residential institutions, we have the highest percentage of Pell-eligible students.

Overall funding impact will be to meet the health and technology workforce needs of the Lakes Region and North Country and bring economic prosperity to the rest of the state. Using project-based Cluster learning, students will take theory and apply it in their field, working with businesses, and graduating prepared to meet the needs of the New Hampshire economy. Please see financial details provided.





# PSU's Integrated Clusters

24 Departments and 3 Colleges into 7 Interdisciplinary Clusters



## The Four Tools of Integrated Clusters

- First-Year Seminar
- Open Laboratories
- Gen Ed Direction Courses *(themed and possibly with certificates)*
- Integrated Capstone Experience *(Junior or Senior Year)*

A Challenge-based, Integrative Education

See further up here.



Plymouth State University's nine key initiatives are:

1. Increased nursing and biomechanical capacity. PSU will better meet the state's critical health care needs for well-trained nurses and other physical and mental health professionals, especially in the more rural, less accessible parts of the state. Funding will provide start-up money and technology to double the size of the PSU nursing program (as the New Hampshire Board of Nursing allows), add two graduate nursing programs, strengthen the partnership between nursing and counseling and resources, and add a graduate program in biomechanics. (\$1,500,000)
2. New Center for Excellence in Health Sciences. The Center will guarantee close collaboration between students, faculty, and external allied health partners, ensuring that PSU graduates have practical experience grounded in theoretical knowledge to help to fill significant state workforce needs in these areas. (\$1,475,000)
3. Strength and Conditioning Lab for PSU's health programs—Nursing, Physical Therapy, Outdoor Adventure, Exercise and Sport Physiology, Health Education, and Athletic Training. Using the space in the existing Physical Education Center (which has been repurposed through investment by PSU and the State), the new programs in health sciences and human performance become a critical resource. The co-location of programs, development of collaborative learning spaces, and provision of adequate laboratory space and technology, combined with health-related programming and projects directed to adaptive programs, healthy aging, and community health and wellness, will enhance life and improve health for central and northern New Hampshire residents through the training of needed health professionals. (\$500,000)

4. Robotics and Electromechanical Technology program, cyber-security and data visualization labs, STEM labs—start-up, tech, and buildout. The technological and physical renovations to the Draper and Maynard building will set the stage for new business development in security, data analytics, the creative economy, manufacturing, and electronics and technology. By adding this program we will leverage the computer science capability in the Exploration and Discovery Cluster. The development of this program will help us to broaden the appeal and create opportunities for biotech, ARMI, data visualization, medical devices, and more. Robotics and electromechanical technologies are needed for New Hampshire biotech, advanced manufacturing, and North Country business development. An added benefit will be the opportunity to utilize these spaces/labs for K-12 STEM, STEAM, and Computer Science 4NH programming. This program is a key ingredient to tie the education of PSU students to the business needs of the region and give students the skills, experiences, and space to work on projects to solve business challenges. (\$1,875,000)
5. Retrofit current learning spaces into collaborative learning areas and Open Labs. Adaptation of existing space will support our changed programs, pedagogies, and curricula. With corresponding technology for these areas as well as new classroom technology, we can further engage and interact with external partners. PSU will be able to attract collaborative partners, including business and government entities throughout the state, with state-of-the art technology. (\$600,000)
6. Integrated Cluster approach in PSU Education programs. Strengthen the impact of PSU’s already highly regarded Education programs by integrating the Cluster approach and project-based learning within P-12 Education. The funding will allow expansion of the Holmes Center for School Partnerships and Educator Preparation’s innovative work with school partnerships across the state, while promoting solutions to New Hampshire’s educational issues in collaboration with its partners. (\$650,000)
7. Expand North Country projects. Projects that focus on and take place in the North Country—an area that contains many of the state’s most economically challenged communities and where many PSU students are from—help to transform these communities and businesses. We are working in collaboration with Granite State College on projects to increase the number of nurses and behavioral health professionals in New Hampshire communities, especially in the North Country. (\$500,000)
8. Establish a Career Center. The Center will integrate career and academic advising with internships and alumni mentors, which will give students a greater understanding of the workforce needs of the state. Students may explore careers they would not have known of before through internships, project-based learning, external partnerships, and alumni mentors. Students will realize their career purpose for attending college and may better plan their academic path to meet it, giving them the drive to complete college and achieve greater individual post-graduation success while better meeting the state’s workforce needs. (\$850,000)



9. Fund internship access for students. We expect that many internships will be in health-related areas, yet many students cannot afford an internship experience. The funds could reduce the students' need to work during their unpaid internship semester allowing the individual to concentrate on the application of their learning to their internship. Funding could also provide local businesses with a temporary, inexpensive labor force and help students to network with local business, thus encouraging students to stay and work within the state. We are transforming PSU into a borderless and project-based university with both internships and classes linked to Open Labs. An integrated career and academic center that links to project-based Integrated Clusters and Open Labs will better connect students to the future and current workforce and development needs of the state. (\$1,050,000)

**Plymouth State University**  
**Building Capacity to Educate New Hampshire Students and**  
**Create a Twenty-First Century Workforce**  
*dollars in thousands*

Health and Human Enrichment Center	\$1,500
Center for Excellence in Health Sciences	1,475
Strength and Conditioning Lab	500
Robotics and Electromechanical Technology Program and Robotics makerspaces	1,875
Retrofit learning spaces	600
Integrated Cluster approach in PSU education programs	650
Expand Cluster projects with North Country business and communities	500
Career Center	850
Scholarships for student internships	1,050
	\$9,000



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**KEENE STATE COLLEGE  
Strategic Investment Request**

Good morning and thank you. I am Melinda Treadwell, President of Keene State College.

The University System of New Hampshire is adapting to an increasingly competitive business climate. During the biennium, the system will deliver innovative and exciting public/private partnership development through support and engagement with the Advanced Regenerative Manufacturing Institute (ARMI) led by the flagship, UNH. Beyond the critical state support for ARMI, this appropriations request will provide investment in, and successes for, the regional campuses in the areas of high tech manufacturing and community health care.

Keene State College (KSC) has completed aggressive cost-containment and organizational redesign in the face of failed market penetration and the resultant enrollment decline over recent years. The college now has a balanced budget and enrollment has begun to stabilize.

The challenge for the college at this moment in its 109-year history is investment flexibility for emerging regional workforce demands, given limited performance margins during our recovery. This multi-year appropriation request will provide essential, targeted funds to stimulate next phase economic growth and programmatic development to meet the priority social and economic needs of the regional economies served by KSC.

As KSC redesigns and becomes increasingly vital, the college is actively deepening partnerships with businesses, municipalities, and nonprofit organizations to meet the mission and needs of the Monadnock region. Keene State is pushing the cutting edge of change in higher education, and we are graduating students who are broadly educated and ready to succeed in their communities and in the workforce. We recognize that the future of higher education will demand innovative, collaborative thinking to build quality programs with partners.

For the biennium, we seek \$9 million in appropriation investment for KSC. These resources will provide focused one-time investment for the most critical educational and support priorities in the southwestern region of our state—community health and precision manufacturing and technology.

If we receive this support, Keene State College will:

- Create a Business Partnership Hub with a focus on technology-enhanced classrooms, precision manufacturing, and optics.
  - We will raze or renovate Monadnock Hall—a current residence hall with Main Street frontage and adjacency to our STEM and business programs. KSC will develop exciting and essential educational programming in precision manufacturing. We will focus on optics as a specialization.
  - The KSC Business Partnership Hub will be the collaboration, design, and educational site where our relationship with British Aerospace Engineering, Moore-Nanotechnology,

Corning, Omega Graphics, as well as the City of Keene, Cheshire Medical Center, and others will create innovative career pathway credentials for the future workforce. These one-time investment dollars will catalyze:

- the development and delivery of a series of credentials across the educational spectrum from high school to adult redevelopment and training;
  - the educational focus to expand our precision manufacturing program with a focus on optics and our health care offerings;
  - a synchronous engagement venue for courses, collaboration, and program delivery across the University System and with our business partners;
  - an engagement and makerspace for entrepreneurs in the region to access our resources and student talent; and
  - a center of professional development and educational program collaboration with the Community College System (CCSNH), KSC, Antioch University, as well as our regional businesses, policy makers, health care providers, and regional nonprofit organizations.
- o The requested funds will support the “standing up” of new, vital educational programs for the southwest region. During the biennium, KSC and CCSNH, with our business partners, will identify not only the existing programs, but also new stackable certificates and credentialing pathways for future regional workforce needs in precision manufacturing, optics, and community health. The Hub will support design, collaboration, and delivery of programs.
  - o The following is a summary of the anticipated capital costs for the development of this Business Partnership Hub:

State Contribution	Keene State College	Business Partners	Total
\$ 7,500,000	\$ 725,000	\$ 1,648,365	\$ 9,873,365

- Provide seed money for the development of new programs aimed at addressing regional health and wellness issues. (The State portion of this is \$1.5 million over the biennium with the remaining \$700,000 from the college.)
  - o Granite State College, Keene State College, and Plymouth State University will collaborate with other partner institutions across the state to increase substance abuse counseling credentials for a future workforce.
  - o During the biennium, KSC will offer to a state and regional audience, licensed alcohol and drug counselor certificate (LADC and MLADC).
  - o KSC will work with regional day and residential treatment programs to increase credentialing for their future workforce needs and will create shared teaching, learning, faculty and student support environments for our region.

The requested one-time dollars will enable us to focus energy to build the support environments and the educational opportunities needed to address these pressing issues for the region.

Thank you for considering this request and for the time and attention this morning.