

Institution Name: Ferris State University

Capital Outlay Code:

Project Title: Allied Health Sciences Building

Project Focus: Academic

Type of Project: Renovation

Approximate Square Footage: Existing 67,400 sq. ft; proposed 87,400 sq. ft

Total Estimated Cost: \$29,500,000

Estimated Duration of Project: 2 years

Project Purpose

Critical shortages in front-line health care professions were exacerbated through the COVID-19 pandemic and continue today. Ferris State University's College of Health Professions remains focused on meeting these critical shortages and improving healthcare outcomes for our surrounding rural communities and the state at large. For example, **92% of Ferris State University graduates choose to stay in Michigan after graduation. With leadership embedded throughout the College of Health Professions' curricula, Ferris State University graduates future leaders in a sector with needs that will continue to grow.**

In recent years, Ferris State University has removed programmatic barriers to expanding critical programs in the area of nursing, dental hygiene, medical laboratory sciences, diagnostic medical sonography, radiologic technology, and others. A notable example is the removal of the wait list for admissions to our nursing program. Yet, in spite of programmatic efficiencies, expansion of these programs depends upon our ability to improve the quality of the clinical and teaching spaces used by these degree programs and professions. To accomplish this outcome and continue to grow these healthcare-related programs, relies heavily on a comprehensive renovation of the Allied Health Sciences Building on our Big Rapids campus. The purpose of this project focuses on seeking capital outlay funding to support efforts that will result in programmatic growth in a sector that desperately needs skilled personnel.

Scope of Project

This proposal encompasses renovation and expansion of the Allied Health Sciences Building, that will result in expansion of approximately 20,000 additional square feet of the original 67,000 sq. foot facility. Originally constructed in 1979, and largely untouched since then, this renovation will address identified health and safety concerns with the existing facility (described more fully below) and update core mechanical and systems infrastructure which are nearing failure and well past their projected useful life. Most notably, however, is the focus on instructional spaces which currently lack larger lecture halls and collaborative learning spaces. Additionally, the renovation will provide for a renovated nursing simulation lab that will not only be reflective of modern healthcare settings but provide space for cross-disciplinary simulations (e.g. pharmacy-nursing-radiography-medical laboratories). This collaborative, nursing simulation space will provide a teaching platform that much more closely replicates the health

care environments our graduates will be practicing in. Finally, the project will support our community dental hygiene clinic and a physical home to the Office of Rural Health Studies and practice.

Community Dental Hygiene Clinic

The Allied Health Sciences Building houses a community dental hygiene clinic which treats both adults and children. The clinic serves as a safety net provider for oral health services since we reside in a dental health professional shortage area where access to care is limited. As this safety-net provider, we deliver oral health preventive services to the uninsured, the Medicaid population, our veterans, and others vulnerable adult populations. Several “Free Children’s Prophylaxis Days” occur throughout the year where **children up to age 13 are eligible to receive free dental cleanings, x-rays, and fluoride treatments** through our dental hygiene clinic.

The Office of Rural Health Studies and Practice

In addition to supporting key programs, the renovated space at the Allied Health Building will provide a new physical home to the Office of Rural Health Studies and Practice (ORHSP). Communities *all* across Michigan need healthcare providers with an understanding and passion for serving rural populations. One example of cross college collaboration in this space is the Central Michigan Recovery and Education Network, a program that is supported with federal funds that blends faculty and staff from our College of Pharmacy and College of Health Professions to address the opioid epidemic in Mecosta, Newaygo, and Osceola Counties.

Interfacing our programs with the ORHSP promises to enhance the delivery and quality of health care in rural regions across the state of Michigan, including the Upper Peninsula. This presents a unique opportunity to manage healthcare challenges through a lens that focuses on teaching, learning and healthcare outcomes for rural communities. These appear as outcomes in the following programs:

- Dental Hygiene (AAS, BS Completion): Upon completion of the program, graduates will be able to demonstrate an ability to:
 - Communicate effectively to acquire, develop and convey ideas and information to diverse populations.
 - Utilize evidence-based knowledge to provide comprehensive dental hygiene care.
 - Assist and participate in the coordination of oral health care services for diverse populations throughout all levels of the lifespan.
 - Utilize theory and evidence-based practice when engaged in activities toward advancing the profession.
- Healthcare Systems Administration (MHA): Upon completion of the program, graduates will be able to demonstrate an ability to:
 - Generate an operational analysis of the structure and performance of a healthcare organization, including the distribution of power and circumstances regarding merger, joint venture, and other financial arrangements
 - Evaluate the impact of population health and status in a variety of settings
 - Synthesize an economically focused strategic plan for evaluation of the distribution of health services based on current health policy, in a community

- Develop and lead the implementation of a project intended to enhance the quality of healthcare delivery in a real-world situation
- Nursing (RN to BSN; MSN; DNP): Upon completion of the program, graduates will be able to demonstrate an ability to:
 - Organize the interdisciplinary healthcare needs of diverse populations across the lifespan toward achieving the goal of healthy individuals, families, groups, and communities.
 - Advocate for healthcare across the continuum of healthcare environments.
 - Demonstrate the ability to navigate and integrate care services across the healthcare system.
 - Advance the culture of excellence through lifelong learning and the design of innovative nursing practices.
- Public Health (MPH): Upon completion of the program, graduates will be able to demonstrate an ability to:
 - Conduct a comprehensive evaluation, using quantitative and qualitative methods, of a health behavior change intervention among residents of a rural or underserved community.
 - Identify weaknesses in existing, real-world environmental health and/or safety policies and use knowledge gained to make recommendations for improvement.
 - Synthesize strategies to develop a culturally competent health promotion and education program.
 - Design a study and apply epidemiologic methods to quantify and propose solutions for a public health issue.
 - Articulate a management style to address a variety of issues in public health settings or in settings that use a public health perspective in service delivery.

Program Focus of Occupants

How does the project support Michigan's talent enhancement, job creation and economic growth initiatives on a local, regional, and/or statewide basis?

Shortages in healthcare occupations are projected to widen over the next ten years according to the Michigan Health Council's 2023 "Michigan Healthcare Workforce Index." Filling these significant employment gaps will require programs that are focused on meeting those needs, as we demonstrate below. And, have the facilities and physical capacity to serve the student population we have today and which we would be able to grow and increase with expanded facilities. In addition to these direct benefits of meeting an identified talent gap in Michigan, filling these positions will increase healthcare outcomes in every community our graduates serve. Increased and improved health outcomes are time and again identified as critical for economic growth, vitality, and vigor of our communities.

School of Nursing

One of the largest programs at Ferris State University, our School of Nursing graduates contribute significantly to the healthcare workforce in Michigan practicing in rural, urban, community, and hospital-based settings. Over the next ten years, demand for nurses is expected to increase by 14% and over the same period with turnover and recruitment there are expected to be openings for over 13,300 nurses in Michigan. Median wages for new Bachelor of Science in nursing graduates is \$35.89/hour. Our School of Nursing enrolls 32 students in each cohort or 96 students total per year. In addition to our bachelor's degree program and our RN to bachelor's degree completion program, we also offer a fully online Master of Science in Nursing degree which enrolls approximately 50 students/year. Entering its 5th year, our Doctor of Nursing (DNP) degree builds upon system leadership in advanced practice and specialty nursing. The DNP enrolls approximately 16 students/year.

Through a strategic degree completion initiative between the State of Michigan and Michigan Community Colleges, the College of Health Professions has partnered with Grand Rapids Community College and Westshore Community College to assist associate degreed nurses (ADN) with completing a bachelor's degree in nursing (BSN). This important partnership seeks to enhance the skills of ADN's through the bachelor completion program which will lead to increased job opportunities, higher salaries, leadership and management roles, enhanced nursing skills for a wide scope of practice and graduate education opportunities.

Dental Hygiene

The Associate of Applied Science in Dental Hygiene program graduates students who contribute significantly to the healthcare workforce throughout the state of Michigan. Graduates enter the workforce to serve across the state in dental clinics, government, public health agencies, school systems, and state agencies. The BS degree completion in Dental Hygiene graduates are prepared with enhanced technological modalities of practice, research, communication, educational leadership, and management skills. The degree prepares graduates for positions of responsibility in a variety of healthcare, educational, research and community settings. Over the next ten years, job growth for dental hygienists is projected to grow by 9% with over 1,100 open dental hygienist positions in Michigan in 2032. In 2021, median hourly earnings for dental hygienists were \$29.73. Dental hygiene care is a vital component of achieving overall health outcomes.

Public Health

The fully online Master of Public Health (MPH) program focuses on career development for leadership positions in public health: from community health departments to global health agencies. The two-year degree builds skills needed to educate and empower communities in their efforts to achieve better health outcomes. The educational emphasis of the degree is rural public health to focus on populations that are underserved or with limited access to healthcare. Recently, the College of Health Professions partnered with the College of Pharmacy to offer a joint PharmD/MPH degree. With national annual starting salaries for new graduates ranging from \$50,000 to \$100,000, this also has the potential to generate significant economic impact in Michigan's healthcare sector.

Nuclear Medicine Technology

The Bachelor of Science degree in Nuclear Medicine Technology at Ferris State University represents the only university-based program of its kind in the State of Michigan and represents an area of growth in the healthcare industry-projected growth of 12% by 2032. Nuclear Medicine Technology offers an innovative medical specialty that utilizes small doses of radioactive material to diagnose and treat disease. Nuclear Medicine technologists administer radiopharmaceuticals to patients and monitor the characteristics and functions of tissues or organs in which they localize. Nuclear Medicine technologists operate gamma scintillation cameras which create images that detect and map the radioactive material in a patient's body. The median annual salary for a Nuclear Medicine technologist in the United States is \$79,590.

Diagnostic Medical Sonography

Diagnostic Medical Sonographers use high frequency sound waves to produce images, collect data, and assist with interpretation to support health care professionals, mainly physicians as they diagnose disease and disease processes. Graduates of the Associate of Applied Science program in Diagnostic Medical Sonography become eligible to sit for the American Registry of Diagnostic Medical Sonographers Sonography Principles and Instrumentation Examination, as well as the Abdomen, and Obstetrics and Gynecology specialty exams.

With national annual salaries for new graduates starting at \$81,029 and a graduating class of approximately 24 students/year, \$1,944,696 in annual salary is generated with each graduating class. Job growth for diagnostic medical sonographers over the next ten years is projected to be 21%.

Radiography

The Associate of Applied Science degree program in Radiography at Ferris State began in 1966 and represents one of the largest and best-known programs in the country. The program maintains accreditation under the Joint Review Committee on Education in Radiologic Technology. As a recognized program in the State, Ferris graduates are highly sought-after employees in hospitals, doctors' offices, forensic medicine, and other healthcare organizations. Ten-year job growth projections indicate a 14% increase in radiologic-related positions.

The program enrolls a class of 50 students annually and the average base salary of new radiologic technologists is \$56,000. However, salaries are increasing annually based on higher demand for imaging procedures due to the pandemic.

Medical Laboratory Sciences

The Bachelor of Science degree in Medical Laboratory Sciences program represents one of only two programs that produce medical laboratorians in west Michigan. Ferris State graduates contribute significantly to the healthcare workforce throughout the state of Michigan. In fact, across the United States, a shortage of qualified medical laboratorians exists, which over the next ten years is projected

to worsen, with nearly 1400 unfilled laboratory technologist position vacant by the year 2032 in Michigan. Career opportunities exist in clinical laboratories in hospitals and medical centers. Additionally, graduates are often employed in the pharmaceutical industry, government crime labs, accreditation offices, environmental technology, veterinary medicine, and lab information systems.

The median annual base salary of full-time medical laboratory technicians is \$46,000. However, salaries are increasing annually based on higher demand for laboratorians due to the pandemic.

Health Information Technology

The Associate of Applied Science degree in Health Information Technology (HIT) at Ferris State University prepares graduates to meet the business and economic challenges of the healthcare industry. Ferris HIT graduates are proficient in common healthcare coding systems, billing, analyzing, managing, and utilizing patient care data. Graduates are eligible to sit for the registered HIT certification exam. The median annual pay for a Healthcare Information Technologist in Michigan is \$49,670.

Health Information Management

The Bachelor of Science degree in Health Information Management (HIM) at Ferris State University prepares graduates to meet the business and economic challenges of the healthcare industry. Ferris HIM graduates are proficient in common healthcare coding systems, problem solving, critical thinking, supervision and leadership. Graduates are eligible to sit for the registered HIM certification exam. The median annual pay for a Healthcare Information Management professional in Michigan is \$63,490.

Healthcare Systems Administration

The Bachelor of Science degree in Healthcare Systems Administration (HCSA) provides graduates with a strong background in general management, human resources, supervision, quality improvement, reimbursement, healthcare planning, and finance. There are also opportunities to undertake focused study in the areas of long-term care management, human resources management, medical informatics, and lean healthcare quality practices via several concentration and minor options. Certificates are also available in Long Term Care and Gerontology. HCSA courses are available on the Big Rapids campus and online.

HCSA course work prepares graduates for entry level administrative positions or to pursue graduate studies. There are career opportunities for both healthcare generalists and specialists. Generalists manage or help to manage an entire facility or system, while specialists manage individual departments or services specific to the healthcare industry.

Job opportunities in healthcare management continue to expand according to the United States Bureau of Labor, with an anticipated growth of 32% through 2029. The median annual pay for a Medical and Health Services Manager in Michigan is \$73,301.

The fully online Master of Healthcare Administration (MHA) degree is designed to meet the needs of today's healthcare leadership. Students develop expertise needed to build careers as leaders in the healthcare industry. The Master of Healthcare Administration program is fully accredited through the Commission on Accreditation of Healthcare Management Education (CAHME). The median annual pay for a healthcare administrator in Michigan is \$84,066.

How does the project enhance the core academic and/or research mission of the institution?

Ferris State University is widely known and celebrated for preparing career ready students in fields that meet the needs of Michigan's economy and society. This project remains singularly focused on that objective. We have identified existing and projected critical shortages in our health care workforce. Ferris State University has developed recognized programming that meets the needs of these in-demand fields to ensure that positive health outcomes can be achieved throughout the state. A fundamental component of healthcare education is experience in clinical settings and cohort-based learning. The existing Allied Health Sciences building is woefully inadequate on both counts and is reflective of teaching and clinical design that is antiquated and no longer contemporary for meeting the needs of our students or the patients we serve in our community dental hygiene clinic.

The College of Health Professions, which is primarily housed in this facility, is one of the largest colleges by enrollment (1,328 students as of Fall 2023) on the Ferris State campus and offers degrees and programs that are central to the identity of Ferris State University. The college houses five associate degree programs, nine bachelor's degree programs, four graduate programs, and three certificates. Eleven of our degree programs maintain specialized accreditation through their professional accreditation agencies. The College of Health Professions is home to 41 full-time faculty, 22 administrative and support staff, and 1328 students.

By extension, the Allied Health Sciences building is vital to the delivery of these flagship academic programs and houses the largest and one of the oldest dental hygiene clinics in the state of Michigan.

This project will include renovation of the following spaces: Dental Hygiene Clinic, Nursing Simulation Lab, Nursing Skills Lab, Medical Laboratory Sciences Lab, Radiography Lab, Diagnostic Medical Sonography Lab, Classrooms/Instructional Spaces, and Student Center/Lounge.

This project will also include new spaces such as additional instructional spaces, specifically a larger lecture hall necessary to support the increased enrollment in our programs and provide the opportunity for new programming. The project also includes an Interprofessional Education Lab to support collaboration and engagement within all programs within the College and required by our many specialized accreditation agencies.

Describe how the project will address, incorporate, or enhance any equity efforts, policies, or goals for the academic programs within the scope of the project or as a component of your institution and campus at large?

This building is more than an academic space. It is a critical and vital component of the healthcare network in Mecosta County and surrounding areas. The Dental Hygiene Clinic, which has been

referenced several times in this proposal serves vulnerable populations including people with disabilities, the elderly, veterans, and low-income patients providing oral healthcare that these populations do not otherwise have access to. More specifically, the clinic itself was designed more than a decade before the passage of the Americans with Disabilities Act. The arrangement and density of the chairs, fixtures, and other clinical equipment makes navigating these spaces extremely difficult for any person with a mobility related disability. The x-ray suites attached to the clinic are not accessible via a personal assistive mobility device. The renovations of all academic, clinical, and laboratory spaces will replicate modern healthcare environments that are universally accessible to patients, students, faculty, and staff of all abilities.

Is the requested project focused on a single, stand-alone facility?

Yes.

How does the project support investment in or adaptive re-purposing of existing facilities and infrastructure?

This project focuses on renovation of the Allied Health Sciences Building, home of the University's College of Health Professions. The building is situated directly between the College of Pharmacy's Hagerman Pharmacy Building and the Michigan College of Optometry. This unique location will allow the Allied Health Sciences Building to serve as a center for the Health Professions, providing updated instructional, clinical and research spaces to support existing programming and program collaboration and expansion across the three colleges. Contemporary instructional and clinical labs will provide benefit to both the learner and the patient, accommodate expansion of existing programs and promote interdisciplinarity. The renovation will focus on modernization of all aspects of the current structure, resulting in a state-of-the-art academic and clinical facility that prepares healthcare students to enter a workforce driven by technological advances and dynamic change escalated by the pandemic and the evolving challenges that have resulted.

Strategically located on the Ferris State campus at a site between Ferris's two other doctoral granting programs (e.g., College of Pharmacy and the Michigan College of Optometry), the proposed building will provide inter-professional opportunities for student and faculty research collaboration, as well as a holistic approach to patient care. These collaborations will continue to distinguish Ferris State as an institution that prepares students to enter a dynamic, innovative workforce, with skill sets and competencies rooted in an applied, integrative education.

Does the project address or mitigate any current health/safety deficiencies relative to existing facilities? If yes, please explain.

Built 43 years ago, the Allied Health Sciences Building has not undergone any major improvements since that time. Not surprisingly, upgrades are needed in all areas of the building including, but not limited to, heating, ventilation, and air conditioning. Outdated laboratory space and dated technology present

instructional challenges, especially as today's educational methodology embraces high-fidelity simulation with advanced technology for our healthcare programs.

Significant health/safety improvements would include the following measures:

- The building was constructed prior to the passage of the Americans with Disabilities Act and significant ADA improvements in space design will be accomplished.
- A preliminary asbestos survey indicates the presence of asbestos containing materials that will require abatement as a component of the project.
- Significant water infiltration has become an issue as a result of and exacerbating existing cracks and foundation leaks.
- The vacuum infrastructure and system, which is critically important for the dental program, is significantly beyond its useful life.
- The building is partially, but not completely covered, by fire suppression sprinklers and would not meet modern code/regulatory requirements for an academic building.
- The building chiller failed in the fall of 2024.

A major renovation would provide the College of Health Professions with an opportunity to reconfigure existing spaces for better utilization, and efficiency with the latest technology, including simulation equipment. Updated instructional spaces will support contemporary learning environments.

The Diagnostic, Laboratory, and Therapeutic programs, and School of Nursing would benefit greatly with updated laboratories more conducive for simulation of treatment. The Dental Hygiene Clinic is in significant need of a comprehensive renovation that would address the need for an improved design and infrastructure that supports more fully integrated digital x-ray capabilities, electronic dental records, patient privacy protections, modernized dental units with enhanced chairside technology, and sterilization equipment.

A few of the laboratory spaces have received some minor modifications over the years, but those alterations have not allowed us to expand capacity or enhance instructional delivery due to limited structural changes. These limitations also contribute to enrollment challenges. Currently, due to lack of instructional space, some programs including Dental Hygiene, and Sonography have admissions waitlist(s) of several years. For example, students on the waitlist(s) for Sonography and Dental Hygiene currently expect a two-to-three-year delay in admissions to the respective programs.

How does the institution measure utilization of its existing facilities, and how does it compare relative to established benchmarks for educational facilities? How does the project help to improve the utilization of existing space and infrastructure, or conversely how does current utilization support the need for additional space and infrastructure?

Using standard utilization measures both in terms of weekly hours used (industry standard is 20 to 35 hours per week, depending upon certain lab work) and station occupancy percentage (85 per cent standard), the current facility is fully utilized. The current facility restricts class sizes, while the newly

renovated facility will allow for larger class sizes, integrated class scheduling, enhanced integrative curriculum planning, and more flexible configuration, which will combine to make the facility more learning-friendly and increased commitment to its utility and efficiency.

How does the institution intend to integrate sustainable design principles to enhance the efficiency and operations of the facility?

Ferris State University has been committed to sustainable and energy-efficient design for all capital projects since the inception of LEED. We modified our design and construction strategies allowing our design and construction partners to deliver a comprehensive framework for green building design, construction, operations and performance. All the University's capital projects are designed to LEED standards, and many have achieved LEED-Silver certification, with multiple projects receiving LEED-Gold certification. All future capital construction projects will continue to be designed to LEED standards with a focus on sustainability and the environment. This project will be designed to a minimum LEED-Silver certification.

Additional sustainable design items will include high-efficiency lighting, high-efficiency HVAC units, interior-finish materials (such as Carpets) that feature highly recycled content and low-emitting volatile organic compounds, and toilet rooms that will incorporate low-water consumption features. Ferris State University will explore the utilization of renewable energies/technologies to support the generation of on-site/facility generated renewable energy.

Are match resources currently available for the project? If yes, what is the source of the match resources? If not, identify the intended source and the estimated timeline for securing said resources?

Yes, the University is prepared to provide its twenty-five percent capital outlay funding match. University reserves serve as the primary source of match; however, it is anticipated that significant savings will be realized by reduced operating and maintenance costs associated with the existing facility and its outdated and inefficient systems.

If authorized for construction, the state typically provides a maximum of 75% of the total cost for university projects and 50% of the total cost for community college projects. Does the institution intend to commit additional resources that would reduce the state share from the amounts indicated? If so, by what amount?

Currently, the University is prepared to secure a match of 25%.

Will the completed project increase operating costs to the institution? If yes, please provide estimated cost (annually, and over a five-year period) and indicate whether the institution has identified available funds to support the additional cost.

As noted above, Ferris State University fully expects that this project will result in **decreased** operating costs. As the existing building and systems have not been significantly modified since construction in 1979, operating expenses should significantly decline with more efficient building design and systems engineering for plumbing, HVAC, electrical and lighting, and insulating materials.

What impact, if any, will the project have on tuition costs?

None. The University continues its strong commitment to affordability and reducing student debt. Tuition is not used to cover construction costs.

If this project is not authorized, what are the impacts on the institution and its students?

If this request is not funded, the programs in the College of Health Professions will continue to be taught in their present locations. The current limitations on instructional and applied clinical instruction will remain. The current facilities hinder learning, limit enrollment growth, inhibit student recruitment, create considerable maintenance challenges, and remain expensive to keep open. Currently, Dental Hygiene and Diagnostic Medical Sonography have excessive admissions waits due to limited space capacity in the college and funding to support additional cohorts. For example, in 2021 Dental Hygiene received 124 admissions applications; however, only 40 students were accepted. Further, in the 2021 Diagnostic Medical Sonography received, 81 applications and only 24 students were admitted. This equates to an average two-to-three-year wait to enter these programs in the College of Health Professions.

In 2022, to reduce admission wait time for our clinical programs, the college increased clinical seats in Dental Hygiene and Nursing to full capacity. Dental Hygiene increased from 40 seats to 50 and Nursing accepted a third cohort increasing enrollment from 64 to 96 students per year.

However, the Allied Health Science building is at maximum capacity, and we cannot grow or increase enrollment further to meet the needs of the healthcare industry and continue to attract quality students in our limited outdated classrooms, laboratories and clinical spaces.

What alternatives to this project were considered? Why is the requested project preferable to those alternatives?

Since originally submitting this proposal, Ferris State University has explored construction of a new, standalone facility, and, at the present time, finds the costs to do so to be prohibitive. We have also explored moving the clinical spaces off campus to off-campus locations in Big Rapids and Grand Rapids. However, currently, we prefer to complete a renovation that includes those clinical spaces to facilitate the kind of learning we intend to support in the facility.

