

**FISCAL YEAR 2018
CAPITAL OUTLAY PROJECT REQUEST**

Institution Name: **CENTRAL MICHIGAN UNIVERSITY**

Project Title: **CENTER FOR INTEGRATIVE HEALTH STUDIES**

Project Focus: Academic Research Administrative/Support

Type of Project: Renovation Addition New Construction

Program Focus of Occupants: **The Center for Integrative Health Studies at Central Michigan University would enable expansion of CMU's highly sought and economically vital programs in the health care marketplace, expanding collaboration among students, faculty, staff and community partners.**

Approximate Square Footage: **62,000**

Total Estimated Cost: **\$26,000,000**

Estimated Start/Completion Dates: **Planning has commenced on this project with construction to follow. Completion would be an estimated 18 months after the start of construction.**

Is the Five-Year Plan posted on the institution's public internet site? Yes No

Is the requested project the top priority in the Five-Year Capital Outlay Plan? Yes No

Is the requested project focused on a single, stand-alone facility? Yes No

Please provide detailed, yet appropriately concise responses to the following questions that will enhance our understanding of the requested project:

Describe the project purpose.

The Center for Integrative Health Studies at Central Michigan University is designed to increase vital access to health care professionals and services for residents and families across Michigan. It would address significant, unmet educational demand among prospective students and provide the state — especially rural and medically underserved communities — with expertly trained undergraduates and professionals with advanced degrees. Much emphasis would be placed on interprofessional education and the concept of a medical family team or medical family home.

About 22 percent of the CMU new freshman class cites health care as a primary area of interest. Spatial limitations have restricted The Herbert H. and Grace A. Dow College of Health Professions from growing for several years in programs such as physical therapy, physician assistant, audiology and speech-language pathology. The proposed renovation and expansion would allow the college to expand these programs, creating more space for classrooms, laboratories and clinical experiences in areas such as autism assessment and treatment, audiology and physical therapy.

The center also would give Health Professions the space needed to collaborate with other colleges, potentially expanding and adding programs in biomedical engineering (with the College of Science and Technology) and Health Information Management (with the College of Business Administration). Other programs currently being studied include clinical laboratory sciences, occupational therapy and respiratory therapy.

CMU also is planning much-needed nursing programs, including a master's in nursing and an expanded partnership with Mid Michigan Community College to further enhance nursing education in the region. CMU has an exceptional reputation in health care, with its physical therapy, physician assistant, speech-language pathology and audiology graduates known for nearly 100 percent first-time pass rates on their national certification exams. Most of these programs also have 100 percent job placement rates. Further, CMU collaborations with other institutions reach statewide, including a physical therapy program with Michigan Technological University that allows Upper Peninsula students to spend two years in Houghton taking CMU physical therapy courses before doing their clinical rotations.

Nearly 90 percent of Central Michigan University's 19,060 on-campus students are from the state of Michigan. Historical data shows about 77 percent of alumni stay in the state, with their jobs and commitment to communities extending from the most urban settings to the most rural.

Describe the scope of the project.

With an approximate square footage of 62,000, the center would cost an estimated \$26 million. Initial program planning has commenced with construction to follow. Completion would be estimated about 18 months after the start of construction.

Research clearly shows that engaged students learn more and are more likely to succeed in their studies. This facility would include significant collaboration and instructional space designed to maximize student engagement with faculty and peers, utilize active teaching methods, and promote collaborative work. This is not only essential to preparing students for the professional world they face, but also increases student performance and decreases absenteeism. The provision of engaging spaces would drive design of the proposed laboratory, clinical, mediated and high-tech active learning classrooms, and at least one critically needed auditorium. The facility, including the auditorium, would serve established health care professionals in need of continuing and specialized education.

This facility would advance a patient-centered medical home model. Students would learn to work in teams as health providers, through an emphasis on interprofessional education.

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

CMU predicts this project will generate approximately 250 additional graduates a year. These alumni would be prepared to excel in high-demand careers such as biomedical engineering, autism assessment and treatment, health information management, physical therapy, physician assistant, audiology, and speech-language pathology. Additional programs currently being planned include a master’s in nursing, clinical laboratory sciences, occupational therapy and respiratory therapy.

Nearly 90 percent of on-campus CMU students come from Michigan, sharing a natural and deep interest in serving the state’s communities and residents. In fact, more than 77 percent of CMU alumni choose to live and work in the state, improving lives, the economy and communities.

Many careers on [Michigan’s Hot 50 jobs](#) list from the Bureau of Labor Market Information & Strategic Initiatives are related to health care. As examples, over the past decade, the demand for:

- physician assistants escalated 20.6 percent;
- occupational therapists grew 18.3 percent;
- physical therapists grew 22.4 percent;
- medical and health services managers climbed 12.1 percent; and
- registered nurses jumped 19.1 percent.

Health care in Michigan is facing significant challenges due to the aging of its population and continued dramatic changes in health care policy at national and state levels. As a consequence, there is greater need than ever to train professionals to provide preventive and remedial health care. These are precisely the professionals who are alumni of CMU’s Herbert H. and Grace A. Dow College of Health Professions and whose numbers would expand significantly if the CMU Center for Integrative Health Studies was built.

Central Michigan University has an active, national model Career Services program that has built extensive relationships with employers across the state and that supports the employment efforts of recent graduates as well as alumni.

2. How does the project enhance the core academic and/or research mission of CMU?

CMU is a major national university, among only 5 percent of U.S. universities in the highest two Carnegie research classifications.

The proposed facility would bring together faculty, staff, students, community partners, regional health care providers and the following CMU colleges:

- The Herbert H. and Grace A. Dow College of Health Professions;
- College of Medicine;
- College of Humanities and Social and Behavioral Sciences; and the
- College of Education and Human Services.

Programs throughout these colleges would be expanded, integrated and added with the proposed capital project request. Additional programs include biomedical engineering (with the College of Science and Technology) and Health Information Management (with the College of Business Administration). Other programs currently being planned include a master's in nursing, clinical laboratory sciences, occupational therapy and respiratory therapy.

This new facility, strategically located in CMU's health professions corridor, would allow the university to expand its interprofessional education. IPE teaches students to work together across disciplines, following the most effective model in health care today — that of the patient-centered medical home.

IPE is an accreditation standard in all health-related curricula. Currently, CMU's IPE curriculum is collaboratively coordinated through efforts such as a CMU-Ferris State University pharmacy initiative and a Mid Michigan Community College Workgroup focused on nursing education.

Due to impressive growth in student demand to participate in CMU's IPE program, conferences and educational programs can no longer be housed in the existing Health Professions Building. CMU's IPE program has grown significantly from 100 students in 2013 to 500 students in 2015, coming from academic disciplines such as athletic training, communication disorders (audiology and speech), social work, recreational therapy, dietetics and physical therapy. These students come together each fall and spring to participate in activities designed to introduce IPE and demonstrate its importance in modern medicine.

What's more, this proposed capital outlay project would give a more prominent and more functional location to the Institute for Health and Business Insight, currently hidden deep in the Health Professions Building. This consulting and student learning group specializes in the use of big data and advanced analytics to solve business and health care problems. Health analytics — critical to data-based medicine — is a burgeoning, critical field that will serve the state and its residents well. This new facility would allow CMU to increase the number of graduates prepared to work in this arena. The work pursued in IHBI crosses all types of educational and practical world experiences and academic disciplines.

CMU also is a leader in active learning technologies, and this project would expand the experiential, engaging educational environments for students at Central and beyond, as well as for health care providers.

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

CMU's 2013 campuswide Space Utilization and Needs Analysis shows the greatest unmet demand is in academic space, with a 165,000 square foot deficit. The existing College of Health Professions building has the highest average hours per week of scheduled use of any building on campus. The proposed project would provide the additional space needed to create the Center for Integrated Health Studies, graduating about 250 more students a year.

The renovation/addition would expand the health professions corridor at CMU, in alignment with the campus master plan. Importantly, it would allow the university's health care faculty, students and researchers to come together and collaborate in one physical area, rather than being spread across campus. Significantly, existing space would be freed up and reallocated for faculty who had been dispersed across campus and for new faculty needed to support the expanding and additional health care academic programs.

The space also would address a shortage of instructional and research space, as well as areas to allow active, team-based learning using cutting-edge technology. Technology is critical for the next level of patient care, especially in the interprofessional education/patient-centered medical home environment.

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

Yes, the current vivarium used for health care research is 16 years old and has been hampered with troublesome lighting and air quality issues. Faced with increasingly stringent regulations, the vivarium and laboratories need updating — including to enhance ADA compliance. Expanded space would allow growth in research activities, whereas faculty and student (both undergraduate and graduate) researchers today operate in very tight spaces.

Ensuring the health and safety of CMU students, faculty and staff is of paramount importance to the university. There are 16 fume hoods in the existing Health Professions building and these hoods have been operating at a high usage rate for 16 years. Although each hood on campus is tested biannually, it is recommended to commission mechanical equipment after several years of service. The commissioning process would thoroughly inspect and examine the hoods' operations to ensure they fall within current safety standards and applicable codes and identify any necessary improvements. Furthermore, the commissioning process would look for inefficiencies in the HVAC system and again, identify necessary improvements.

5. 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?

CMU has completed an exhaustive campus master planning process. The analysis found that CMU is operating at capacity in many buildings, including in Health Professions, and is in need of additional classroom and laboratory space. The 2013 utilization and space needs analysis determined classrooms in the Health Professions Building have the highest average hours per week of scheduled use. What's more, the space is only two-thirds of what is needed, according to national higher education guidelines.

A number of Health Professions faculty have been forced to move to other buildings because of space limitations, separating professional educators and their students from the core building to other facilities not designed for their needs. The new building offers CMU the opportunity to bring faculty back together, fueling greater collaboration among faculty, staff, students, community partners and health providers.

As noted in question 2, this project would give a more prominent location to the Institute for Health and Business Insight, which specializes in the use of big data and advanced analytics to solve business and health care problems. A more prominent location and space designed specifically to meet the needs of the institute provide for future growth and enhanced integration across academic disciplines.

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

With a proud history of integrating sustainability into all of its renovation and construction efforts, **Central Michigan University is determined to achieve LEED gold status on the proposed project.**

CMU consistently proves its commitment to sustainable design, as certified under the U.S. Green Building Councils LEED system. Its new Biosciences Building will be at least LEED silver (likely gold), and its Graduate Student Housing is the first multifamily Platinum LEED building in the Midwest.

CMU saves nearly \$3 million annually through energy conservation initiatives. Solar tubes installed on the Education and Human Services Building, which received CMU's first LEED gold certification, provide 35 percent of the facility's heat. Notably, CMU is on the Princeton Review's 2013, 2014 and 2015 lists of 322 green colleges (out of nearly 5,000 U.S. colleges and universities).

CMU also is a leader among Michigan's 15 public universities in energy rebates from the public utilities and is home to the Great Lakes Institute of Sustainable Systems.

- 7. Are match resources currently available for the project? If yes, what is the source of the match resources? If no, identify the intended source and the estimated timeline for securing said resources?**

Yes, CMU plans to use currently available university construction reserves for this project. It also is working to secure private/foundation gifts to offset the construction costs of the center, which is one of the university's master plan priorities.

- 8. 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?**

CMU plans to use university reserves to cover the remaining costs, offsetting that by raising external funds from private donors as well.

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

The completed project would increase operating costs through program costs and approximately \$150,000 annually in additional utilities, with a 3 percent annual escalation. CMU would fund these additional costs — nearly \$800,000 total over five years — through revenue provided by the additional students who would enroll in the new and expanded programs offered through the center.

- 10. What impact, if any, will the project have on tuition costs?**

This project would NOT cause tuition increases. In fact, the resulting increase in enrollment would help CMU to maintain its commitment to minimal annual tuition increases. CMU has had the lowest cumulative undergraduate tuition increase of any Michigan public university the past seven years.

- 11. If this project is not authorized, what are the impacts to the institution and its students?**

This project is essential to CMU students as well as to patients, families and health care employers in the central region of the state. It continues the university's expansive commitment to serving the state and its burgeoning, unmet need for health care professionals, especially in rural and medically underserved communities.

Without this program, health care employers, residents and families would lose out on having more highly trained professionals providing much-needed access to quality health care services. This causes a spiral of diminishing health among Michigan residents and thus increases the state's health care costs.

Health programs at most Michigan universities are at capacity. Without this project at CMU, an increasing number of Michigan students will leave the state to obtain degrees to become physical therapists, physician assistants and audiologists, for example. The trickle-down effect: Once students leave the state to pursue an education, they are less likely to return to Michigan to serve those communities that so desperately need expert care.

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

CMU's Board of Trustees approved a 10-year campus master plan and capital projects list following an extensive, campuswide review of options and alternatives. The 10-year list was developed by a cross-campus team of faculty and staff based on input from thousands of on-campus and community stakeholders.

The CMU Center for Integrative Health Studies is on that list and subsequently was chosen as the No. 1 capital priority based on student demand and state needs. With no other available space on campus, and related health programs at full space capacity, the only viable solution is to construct an additional building and renovate the connected, related space in the Health Professions Building.

Student demand for the programs that would be expanded or added through this center is high and substantially unmet by Michigan's higher education system. So, too, is there pent-up demand for continuing, specialized education for health care professionals. These factors leave critical gaps in the delivery of health services across the state.

Such gaps would be addressed by the expanded and new health care academic programs at Central Michigan University, facilitated by the renovated and additional space of this project and constructed with a moderate investment from the state and the university.

Health studies programs are among CMU's highest-demand areas and rank as one of the university's top programs in academic prioritization. The proposed project accommodates some of the highest-demand career options with the strongest career outlooks. As such, this proposed capital outlay project would help to *improve the health of Michigan's residents and economy.*