

**FISCAL YEAR 2025  
CAPITAL OUTLAY MAJOR  
PROJECT REQUEST**

Institution Name: Jackson College

Capital Outlay Code:

Project Title: STEM Remodel of James McDivitt Hall

Request Code:

Project Focus:  Academic  
Type of Project:  Renovation

Research  
 Addition

Administrative/Support  
 New Construction

Approximate Square Footage: 117,000

Total Estimated Cost: \$45M

Estimated Duration of Project: 30 Mos.

Is the Five-Year Plan posted on the department's public Internet site?  YES  
Is the requested project included in the Five-Year Capital Outlay Plan?  YES

**Project Purpose**

The purpose of renovating and expanding the Jackson College STEM Center Building is literally at the heart of Jackson College's mission, which declares that we are an institution of higher education whose mission it is to assist all learners in identifying and achieving their educational goals. This proposed Capital Outlay project will result in creating new jobs for the State of Michigan through the employment of new, permanent, full- and part-time College personnel and, concomitantly, adds significant construction jobs for the duration of the project. It is estimated that the project will result in 5 new full-time faculty positions, 3 full-time technician positions, and 3 staff positions (full and part-time) resulting in an addition of \$1,000,000 annually to the state's resident workforce revenues. Further, the economic impact of the project through construction and equipment, utilizing a conservative multiplier will result in \$315,000,000 of economic impact in the State. Ultimately, the building, and its attendant instructional programming will provide students with educational opportunities in

high-demand instructional programmatic areas designed to lead them to completing a career-based credential of market value, entering the workplace or transferring to a baccalaureate-degree granting institution to continue their studies.

The College seeks to join with the State of Michigan, through this project, to prioritize STEM education for its citizens, among our overall instructional programming in order to future-proof our graduates going forward. According to the National Science Foundation, "...STEM Education brings together our advanced understanding of how people learn with modern technology to create more personalized learning experiences, to inspire learning, and to foster creativity from an early age. It will unleash and harness the curiosity of young people and adult learners across the United States, cultivating a culture of innovation and inquiry, and ensuring our nation remains the global leader in science and technology discovery and competitiveness."

As part of this new program for Jackson College, undertake an inclusive approach to student recruitment and support. Additionally, we will be able to ensure access for all students, with special attention given to at-risk students, students of color, and disabled students, including the hiring of faculty to serve as role models for these students.

## **Scope of the Project**

The intended renovation and addition of this approximately 117,000 square foot instructional, classroom and instructional lab facility will be comprised of the following elements:

- Bimodal and hybrid ready learning environments to include:
  - Multi-function/flexible learning studios
  - Science Lab improvements
  - Cadaver Lab improvements
  - Study / breakout rooms
- University Center expansion and dedicated spaces to include Wayne State University, Siena Heights University, and Spring Arbor University
- Faculty/Staff Offices
- Conference Rooms
- Math Peer Study Center
- Science and Study Labs
- Engineering Labs
- Biology/Botany Greenhouse
- VR Learning Lab
- Computer Networking Labs
- Cyber Security Labs
- Building Maintenance and Operating Systems

- Storage
- Human Circulation Spaces
- Building Security / Reception area
- Restrooms
- STEM Commons
- Astronomy Lab
- Physics Manipulation Lab
- Makerspace Lab

## **Program Focus of Occupants**

2. The particular focus of the proposed renovation and addition is, of course, providing education in courses and instructional programs that not only meet a strong market demand in the STEM field, but also in providing specific STEM courses and pre-baccalaureate programming for transfer students. The particular design focus of the instructional spaces is built around faculty input, recommendations from related instructional advisory groups, as well as the general structure of the existing building. Ultimately, the space will provide practical, practicum, laboratory, and programmatic instructional experiences designed to advance student success in their program of study, degree and/or credential completion, and/or transferring to a baccalaureate university, or immediate employment in the industry, including business ownership.

Students emerging from STEM education at Jackson College would be able to secure jobs as Geographers, Computer Systems Specialists, Environmental Specialists, Water Analysts, Forensic Science Technicians, Web Developers, Accountants, Computer Systems Analysts, GeoTechs, Computer Network Architects, Cartographers, Cost Estimators, IT managers, Artificial Reality Techs, Science Lab Techs, Cyber Security Techs, Physics Lab Techs, and Technical Writers. Students choosing to transfer to a baccalaureate-granting institution will have additional opportunities. According to Indeed, their 21 STEM jobs in high demand currently (see: <https://www.indeed.com/career-advice/finding-a-job/stem-jobs> )

### **Additional Information:**

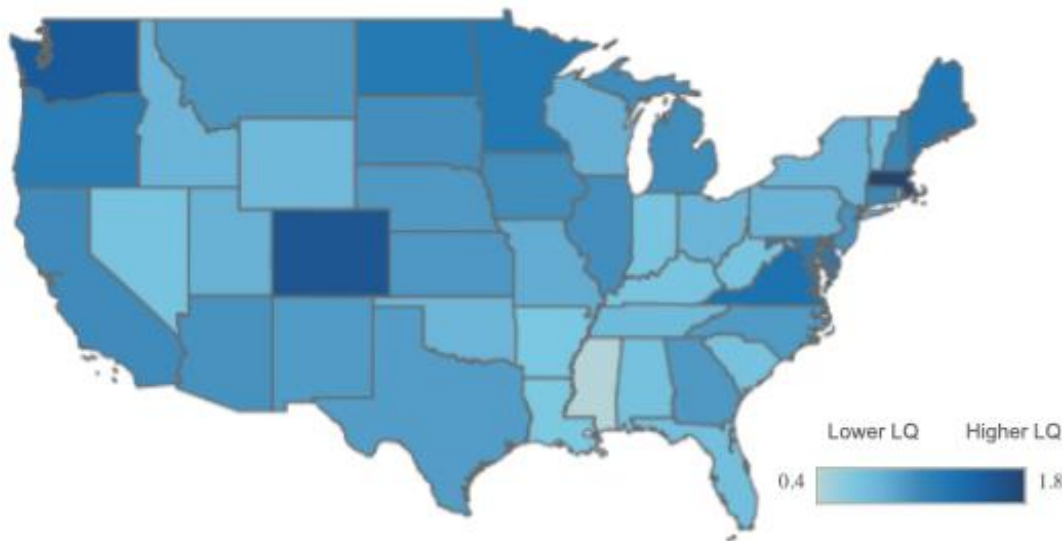
**How does the project support Michigan's talent enhancement, job creation and economic growth initiatives on a local, regional and/or statewide basis?**

This project will provide for the education and practical experience necessary for students to enter into a high-demand job market that is comprised of various specialization areas, as noted previously. This project is consistent with the Governor's and the MI department of education's priority to make Michigan a World Leader in STEM education and careers (see: [https://www.michigan.gov/mde/0,4615,7-140-37818\\_34785-378071--,00.html](https://www.michigan.gov/mde/0,4615,7-140-37818_34785-378071--,00.html) ) as well as the focus of the MI-STEM Council. Our focus on advancing STEM education at Jackson College also supports the State's economic development priorities as well (see: <https://www.michiganbusiness.org/news/2021/05/a-conversation-on-the-importance-of-stem-talent-and-internship-opportunities-in-michigan/> )

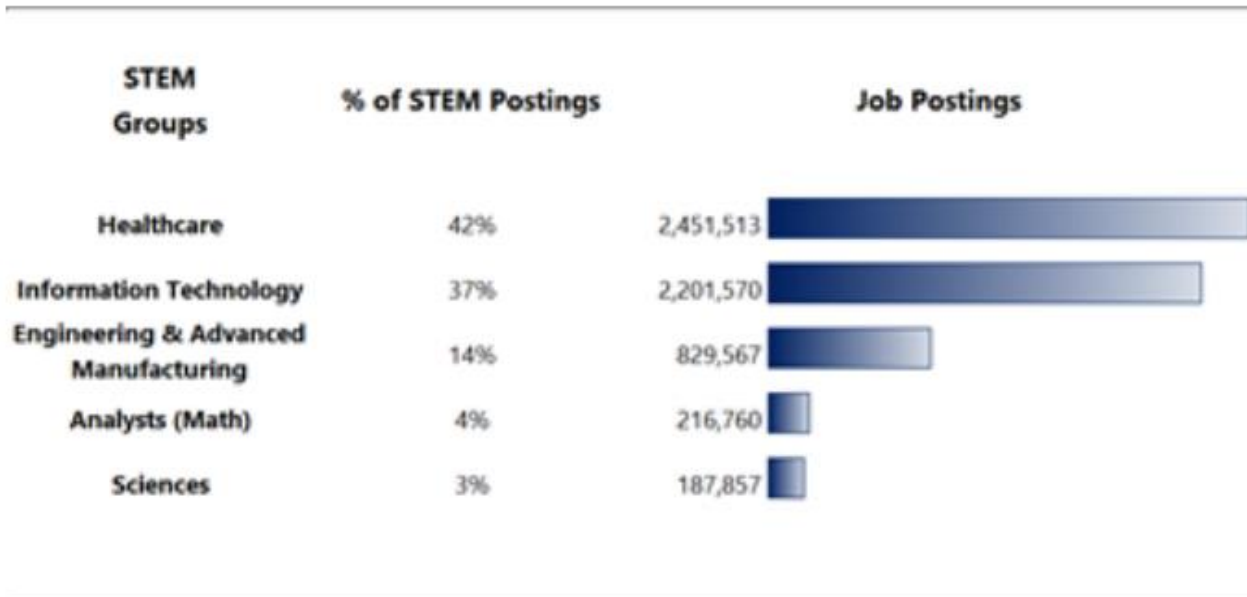
Further, it is our intention to partner with K-12 institutions, as well other colleges and universities to provide for STEM academies for dual enrolled students, advance STEM opportunities particularly for women and minorities, and enhance graduation rates for STEM students.

Data on the demand for STEM jobs is hefty with over 5.7 million job postings, according to Burning Glass. The graphic

### Per Capita Concentration of Online STEM Job Postings



above of the United States demonstrates a strong demand for STEM trained graduates. The graphic on the next page outlines the specific areas for job demand within STEM. Furthermore, and salary for STEM degree holders includes a substantial premium when at the associate degree level where annual wages are over \$66,000 annually.



**How does the project enhance the core academic, development of critical skill degrees, and/or research mission of the institution?**

The extensive renovation of Jackson College’s Whiting Hall is essential in order enhance the critical instructional and workforce training demand for the region. Jackson College is the preeminent leader in education and workforce development that is looked upon by area employers as the educator of first choice. The College is looked upon to provide for a strong cadre of interns, contract training, economic development, and employee certificate and degree graduates. And while not a research-based institution of higher education, Jackson College’s Office of Institutional Research and Effectiveness (IRE), does provide extensive outcomes and performance data on the instructional and workforce efforts of the College. Through this Capital Outlay project, Jackson College remains relevant and essential to the employer community by providing the competencies, skills, and abilities for their current employees, as well as with a steady stream of qualified students to meet their workforce needs.

**Is the requested project focused on a single, stand-alone facility? If no, please explain.**

The projected contemplated by this proposal, is a single, stand-alone-facility, with exterior classroom spaces. However, there is a physical “connector-walkway” to another nearby building, known as the Health Laboratory Center HLC. That said, no funds proposed in this Capital Outlay request will be associated with the HLC building.

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

As outlined previously, this building is a complete repurposing of the existing facility, with a minor square foot expansion of 20,000 square feet to better accommodate an increased number of simulation centers, training, and prototype lab spaces. Please note that the existing infrastructure (water, sewer, power distribution, boilers, air handlers, etc.) is all in critical need of replacement, and is failing in some areas, and as such, cannot be repurposed. However, much of the classroom furniture will be repurposed into the renovated facility.

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

The new renovation will indeed correct several current design flaws in the existing building, particularly related to access for people with limited mobility. Further, the new HVAC system contemplated for the facility will include elements that provide for the extreme reduction of airborne disease transmission, by incorporating a variety of filtration and intensive light technologies. Beyond this, the new elevators planned for the existing two-story building, will replace the two smaller ones wherein the cars are insufficient in size so to allow EMT patient transport stretchers/gurneys to enter.

**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?**

College has engaged the CampusWorks organization (see: <https://www.campusworksinc.com/>) to ensure the creation of a fully-integrated, relational ERP system, that will permit the College to provide real-time data regarding facility utilization, utilization rates, as well as improving utilization efficacy. At present, the process is a manual scheduling system and is a lagging indicator. The remodeled facility will include proximity polling systems that allow the college staff to monitor room utilization, energy consumption, occupancy times, etc. As this building is equipped with room and space monitoring systems, other campus facilities will be likewise equipped with an aftermarket product that will be added into the College's ERP data and campus facilities management systems.

This building, even in its current configuration is an essential tool in the College's ability to address critical instructional program needs in multiple applied and technical areas.

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

Jackson College is committed to becoming carbon neutral by 2028. To that end, the College will utilize Leadership in Energy and Environmental Design (LEED) guidance principles in both design and construction of the facility. The LEED certified building will be designed to save the college operational money, improve operating efficiency, lower the College's carbon emissions, and create healthier spaces for our students, guests, and employees. This work is critical to our ability to address climate change and meeting the Board of Trustee's ESG goals, enhancing organizational resilience, and supporting a more equitable region of the State of Michigan. Additionally, the construction methodologies utilized on this project will likewise be LEED compliant insofar as scrap materials will be sorted and recycled, as will the refuse from the demolition of the building.

Finally, as part of the design process, the project planning cycle will consider more sustainable options for building operations including the use of carbon credits, photovoltaic and ground thermal options. Minimally, the building development process will prioritize the use of highly efficient energy utilization systems, ensure a full building and equipment commissioning process, and closely monitor energy utilization through advance building censoring systems technologies.

**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, the intended source for the Jackson College 50% match is general operations and bond indebtedness.

**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?**

Given the limited local property tax support for Jackson College operations (i.e., 12% of the College's total revenue stream), and even though multiple requests for additional tax support and/or Headlee Override requests have been declined by Jackson County voters – who have continually denied such requests since 1964, the College is unable to provide additional project match funding for this Capital Outlay project.

It should be noted that such matching is not a requirement of the Capital Outlay legislation, and it is believed that our smaller institution should not be held to the same level of match expectation as other community colleges in the State which have local tax support in excess of 50-60% of their total revenue streams, not to mention the significant tax base of those larger metropolitan areas, as well as their substantial foundation capacities. Such practice is not statutorily required, nor is it equitable in awarding additional application review points for this. We respectfully request the elimination of this practice, or minimally providing some other weighting measure to allow for such huge variation in the resources available to large and smaller institutions.

**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.**

As a single, discrete building, the total operating costs will be reduced due to incredibly improved HVAC systems, including the introduction of energy management systems, and a reduction of energy costs. The addition of modest supplementary square footage will not create additional operation costs in excess of the savings obtained from energy efficiencies. The additional cleaning team service required for the minor additional spaces will be covered by another half-time support person.



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

Students will not feel the effects of any tuition increase beyond those of normal inflationary adjustments permitted by the Governor and the state legislature – which are currently based upon tuition increase caps.

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

Should Jackson College's request for Capital Outlay be denied, the College will continue to make application for future consideration. Beyond this, the College will be unable to add other instructional programs at a cadence that would allow for timely response to industries' changing needs, let alone attending to rising deferred maintenance costs. As noted previously, part of this project and its renovation is designed to address long-standing and extensive deferred maintenance issues of \$17.2MM that are beyond the immediate financial capabilities of the College. Consequently, the College will be strapped with addressing an unnecessary level of expenses related to energy costs and repairs – in some cases throwing good money after bad.

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

The College has contemplated other options in opposition to pursuing the capital outlay request, which has included seeking private/donor funding, additional millage support, and partnering with private organizations. None of these options were successful. As an example, the College has only 12% of its total revenue coming from the local taxpayer base. On 14 different occasions since its original millage of 1.33 mills in 1964, however all 14 requests for additional support were denied by voters. The millage, due to the Headlee effect, is now 1.13 mills. Though the College is seeking a Headlee Override request of Jackson County voters in November 2023, it is highly doubtful that it will be successful. This, in part, describes why the College is now working through the option of Capital Outlay to achieve its mission and objectives.