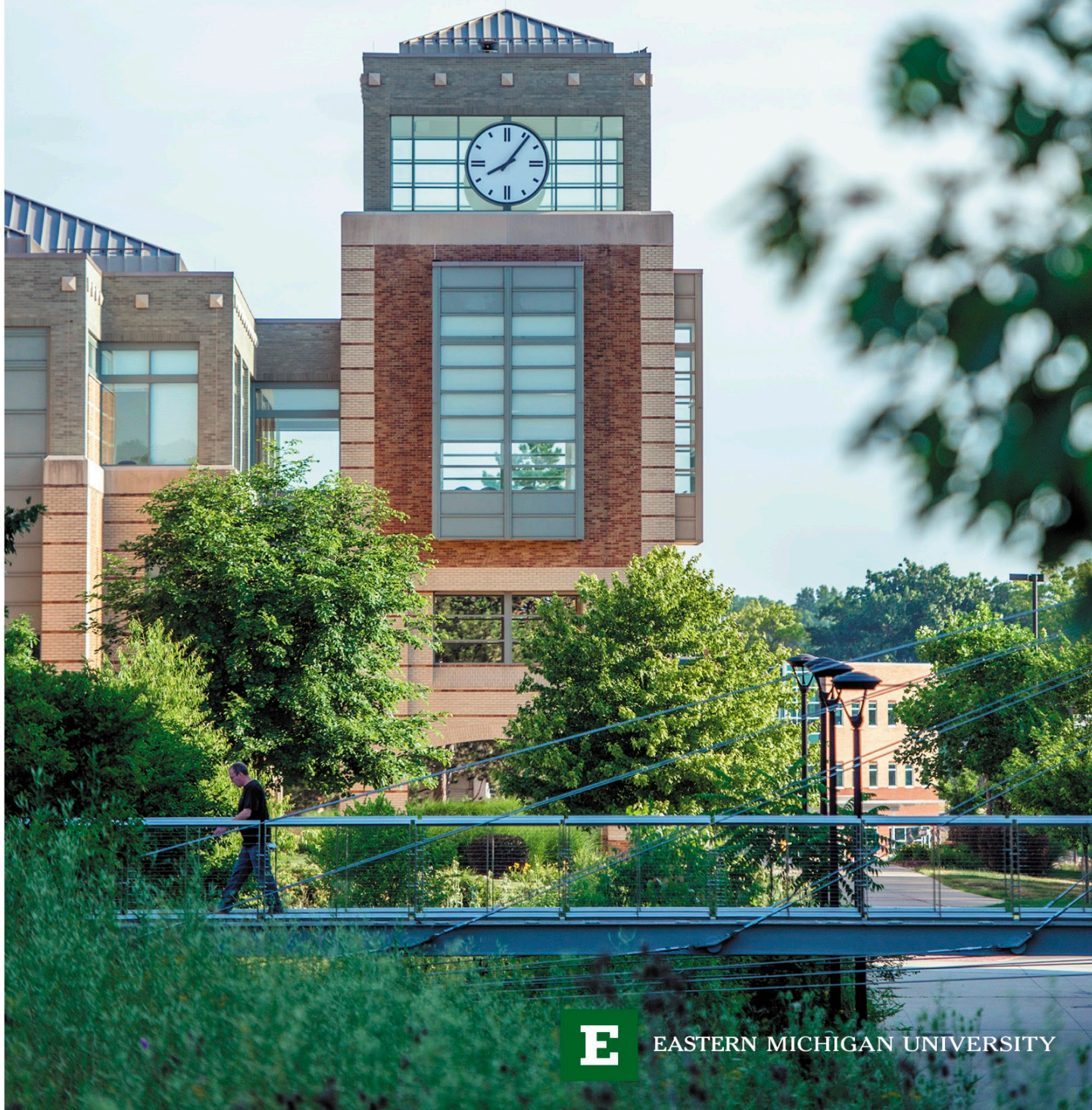


CAPITAL OUTLAY PLAN

FY**2024**



EASTERN MICHIGAN UNIVERSITY

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EXECUTIVE SUMMARY

GameAbove College of Engineering and Technology Complex – Phase II Advanced Technology Center

Eastern Michigan University is pleased to present this Capital Outlay Plan for FY 2024 in which the University outlines its request for funding for the Engineering and Technology Complex – Phase II: Advanced Technology Center.

With the completion of \$130M in renovations and additions to the Science Complex, Eastern Michigan University has turned its attention to meet the strong demand throughout Michigan for qualified engineering and advanced technology students through programs in our GameAbove College of Engineering and Technology (GACET).

Through planning and benchmarking, the University and the College have reviewed current and planned programs to develop a Master Plan to support short and long-term GACET goals. With rapid growth in our existing advanced technology programs such as Cybersecurity, Information Assurance, Embedded Technology, Drone and Aviation Studies as well as expansions and additions to engineering programs such as Mechanical, Electrical and Computer, Civil Engineering, the College projects a 65% growth in enrollment in the next 10-15 years. Demographics have indicated 71% of our reachable alumni remain in Michigan. This continues to demonstrate the benefits of these programs to the state as a whole.

The GACET Master Plan includes a two-phased approach to (1) “right-size” the College for the current student population, and (2) “increase and optimize” space for the needs of an increased enrollment for new and future program offerings.

INITIAL LOCALLY FUNDED EFFORT

To meet the initial needs of right-sizing, Phase I was designed to modernize and expand Sill Hall. Originally submitted as the University’s FY2019 State Capital Outlay Request, the urgent space and facility needs following the creation of Mechanical, Electrical and Computer Engineering programs dictated an immediate start to this effort. As such, Phase I was locally funded by Eastern Michigan University in December 2017. The project, which included renovations and an addition, provided advanced research and teaching labs, advanced classrooms and student collaborative spaces, and replacement of all outdated building systems was completed for the Fall 2020 semester.

The University now turns its attention to Phase II to increase and optimize space for the needs of increased enrollment and expanding programs. Focusing primarily on advanced technology programs, the Phase II Advanced Technology Complex will renovate and expand Roosevelt Hall, increasing space utilization efficiencies, and aligning program use with building systems. The effort will also relocate technology programs from Sill Hall to allow for the continued growth of the engineering programs.

STATE CAPITAL OUTLAY REQUEST FY 2024

Roosevelt Hall, built in 1924 as a High School for the Ypsilanti Public Schools, and purchased by Eastern Michigan University in 1973, has served a multitude of uses for the GACET. Last renovated in 1973, Roosevelt Hall contains 75,639 sf, and houses the Schools of Cyber Security & Applied Computing (CSAC), Technology & Professional Services Management (STPSM), and components of Visual and Built Environments (SVBE). Additionally, Roosevelt Hall has been the base of operation for EMU's Military Science and Leadership Department and the Reserved Officers Training Corp (ROTC) program.

Programmatically, the Cyber Security/Information Assurance and Information Technology programs have witnessed a 16% increase in student enrollment and a 25% increase in overall course load. New advanced degrees in Cyber Security and Information Technology continue this trend.

The Aviation programs, housed in STPSM, have also increased 17% in enrollment over the last five years in response to a significant shortage of pilots worldwide. Current and future integration of our Drone Technology programs with the flight programs demonstrates our commitment to be on the cutting edge of technology in all programs.

Condition Assessments have identified Roosevelt Hall as among the top ten University facilities in greatest need for renovation with nearly \$12.6 million in deferred maintenance needs. Combining the programmatic improvement needs with the necessary replacement and improvements in building systems, building envelope and learning environment will provide an effective and efficient means of meeting the second phase requirements of the GACET Master Plan.

The projected project cost for the Engineering and Technology Complex – Phase II: Advanced Technology Center is \$42.5 million. The project timeline is three years from design approval through construction completion. Initial programming is complete with further programming and schematic design exercises to follow. The University and GACET stand ready to begin work upon approval.

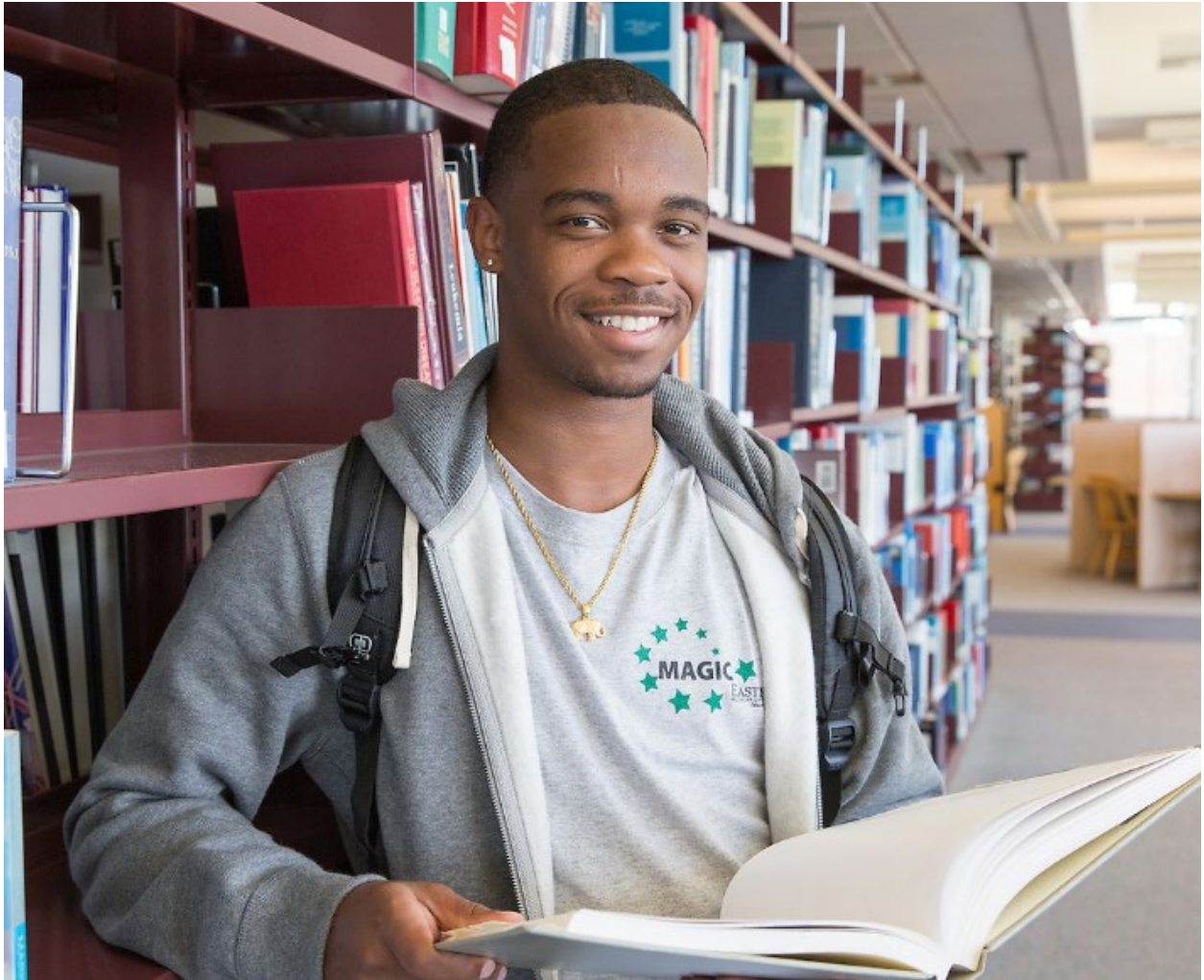
ABOUT EASTERN MICHIGAN UNIVERSITY

Established in 1849 as the Michigan State Normal School, EMU has played an important role in providing higher education to the students of Michigan, the Midwest region, the United States and countries around the globe. With approximately 88% of our students originating from Michigan and approximately 71% of these students remaining in Michigan following graduation, an investment in EMU is an investment back into the state of Michigan.

Throughout its history, EMU has enriched the lives of the citizens of Michigan by developing countless teaching, business, health and human services, technology and STEM professionals

who have gone on to make meaningful contributions to society and the local and national economies.

The University has accomplished this by providing an exceptional learning environment that accommodates the diverse mission and specialized delivery of instruction that meets the expectation of our students and their parents, business and industry, and the state. An exceptional learning environment requires facilities that are up-to-date and can accommodate the technologies that are now woven throughout every discipline.



MISSION STATEMENT

VISION

CORE VALUES

MISSION

Eastern Michigan University enriches lives in a supportive, intellectually dynamic and diverse community. Our dedicated faculty balance teaching and research to prepare students with relevant skills and real world awareness. We are an institution of opportunity where students learn in and beyond the classroom to benefit the local and global communities.

VISION

Eastern Michigan University will be a premier public university recognized for student-centered learning, high quality academic programs and community impact.

CORE VALUES:

Excellence - We provide an exceptional environment to our faculty, staff, and students. We improve our performance continuously and strive to be the best in everything we do.

Respect – We care for our people, communities, and the environment and show respect for the dignity of the individual.

Inclusiveness – We create an environment that supports, represents, embraces, and engages members of diverse groups and identities.

Responsibility – We are accountable – individually and in teams – for our behaviors, actions and results. We keep commitments.

Integrity – Integrity and transparency are critical to our institutional effectiveness. We pursue the highest level of personal, intellectual, academic, financial, and operational integrity within the University community.



INSTRUCTIONAL PROGRAMMING

EXECUTIVE SUMMARY

THE COLLEGES

OTHER ACADEMIC UNITS

EXECUTIVE SUMMARY

The University was founded by the State of Michigan in 1849. Then called Michigan State Normal School, its primary purpose was to educate teachers. In 1956, Michigan State Normal College became Eastern Michigan College, and in June 1959, then comprising three Colleges and a Graduate school, it became Eastern Michigan University.

Today, Eastern Michigan University is a comprehensive Undergraduate and Graduate institution, offering over 140 Undergraduate majors and curricula leading to a broad spectrum of Baccalaureates and over 130 Graduate concentrations leading to the Master's, Specialist's, and Doctoral degrees. Its focus is on preparing students to succeed beyond graduation by emphasizing a personal approach to education in which the student is the center of the learning experience. The University prides itself on putting "Education First."

The University is fully accredited by the Higher Learning Commission (HLC) of the North Central Association (NCA) of Colleges and Schools. More than 100 national and international professional organizations provide focused accreditations at the college, department, and program levels.

The University's Division of Academic Affairs comprises five academic Colleges: the College of Arts and Sciences (CAS), the College of Health and Human Services (CHHS), the College of Business (COB), the College of Education (COE), and the GameAbove College of Engineering & Technology (GACET). The Division is further supported by a comprehensive Honors College, Graduate School, Office of Research Development and Administration, Engage EMU, and the Bruce T. Halle Library (LIB).

THE COLLEGES

College of Arts and Sciences

The College of Arts and Sciences (CAS) was established in during the 1959-60 academic year when EMU became a University. The College currently is the largest in the University, with 18 Departments and Schools (Art; Africology and African American Studies; Biology; Chemistry; Communications, Media and Theatre Arts; Computer Science; Economics; English Language and Literature; Geography and Geology; History and Philosophy; Mathematics; Music and Dance; Political Science; Physics and Astronomy; Psychology; Sociology, Anthropology and Criminology; Women and Gender Studies; and World Languages). Graduate Studies in the College expanded rapidly from two degrees in 1960 (History and Literature) to degrees in all departments by 1969. Beginning in Fall 2001, the College began offering a Ph.D. in Clinical Psychology, the first Ph.D. at EMU.

For a perspective of the size and complexity, the College of Arts & Sciences:

- Generates more than half of EMU's student credit hours.
- Employs slightly more than half of the University's faculty.
- Uses all or part of 13 buildings.
- Offers nearly all of the general education courses, which provide the foundation for specialized work in major programs.
- Maintains over 100 Undergraduate and 50 Graduate programs.
- Includes over 5,000 Undergraduate and 600 Graduate majors each year.
- Awards more than 1,200 Undergraduate and 250 Graduate degrees annually.

The College is also proud of the following attributes:

- It exhibits student research and creativity in its annual Undergraduate Research Symposium.
- Maintains the federally funded (a) Sailing Ocean Literacy Grant; (b) DUETS Urban Education Grant; (c) TCATTE English-As-A-Second-Language Grant; and the (d) Creative Science Inquiries Experience Program (CSIE).
- Hosts the Institute for Geospatial Research (IGRE) has received major grants from NOAA, Michigan Department of Natural Resources, NASA, and NSF.
- Every Department in the College participates in the education of teachers through specific methods course offerings.

College of Health & Human Services

The College of Health and Human Services (CHHS) prepares professionals with the knowledge and skills to enhance quality of life for Michigan residents and facilitate social change. The College's schools include: Health Promotion and Human Performance, Health Sciences, Nursing, and Social Work. The College of Health and Human Services is located in the Porter Building, the Warner Building, Roosevelt Hall, and the Marshall Building. Administrative space is provided in the Marshall Building for the Dean's office and three of the four schools, as well as laboratories and classrooms for the whole College. Roosevelt and Warner provide classroom and laboratory space, and Porter houses the School of Health Promotion and Human Performance.

With the State of Michigan's push to support health and human service programming, the population of undergraduate and graduate students has increased in the college, becoming the second largest at EMU. Classroom and office space are at a premium. There is a possibility of increasing the number of students in some of the existing programs as well as adding new programs if our need for more classroom, laboratory as well as research space is met. Furthermore, the CHHS has hired new research faculty over the past few years, and with the 2009 addition of a doctoral program in Nursing Education, steady expansion of faculty/student, interdisciplinary-research collaborations are anticipated. The first class of students in the new Physician Assistants program entered in 2014. The program's facility needs were met with an upgrade to Rackham Hall and a unique partnership of sharing space at St. Joseph Hospital. Under these circumstances, the CHHS has proposed a three-prong strategy to address its facility needs.

- First, the Warner facility needs major renovation: heating and cooling, classrooms, existing labs, etc.
- Second, acquiring additional space in the Bowen and Warner buildings, and
- Third, the future expansion to the Marshall Building, for office and research needs is critical to grant acquisition and contract services for on and off-campus constituents as well as to meet accreditation requirements.

To address the first component of the CHHS strategy regarding the Warner building, a multi-disciplinary Running Science Laboratory provides central coordination and support services to researchers. The center is comprised of a variety of laboratories such as movement technology, performance testing, simulation, sensory integration, body composition and wet laboratories. Currently at EMU, similar research institutes, such as the Coatings Research Institute, thrive and can serve as a model for this endeavor.

While most proposals will serve one or two major research efforts, this one benefits a College whose percent increase in enrollment and new faculty hiring outpaces the rest of the campus.

EMU has made a strategic decision to grow research capacity. While EMU has been a stellar, accredited, comprehensive university for more than 170 years, it enjoyed 75% state support in

the 1970s and now receives approximately 25% of its revenues from state funding. Seeking revenue from grants and contracts to achieve our mission has become an important goal.

Several programs in the College of Health and Human Services are accredited by disciplinary organizations, which frequently list standards for quality of program space especially with regards to research space:

School of Health Promotion and Human Performance - Athletic training accredited by the Commission on Accreditation of Allied Health Education Programs and the Joint Review Committee on Education Planning and Athletic Training; health education accredited by the Michigan Department of Education/National Council for the Accreditation of Teacher Education; orthotics and prosthetics is accredited by the National Commission on Orthotics and Prosthetics Education; physical education is accredited by the National Association of Sport and Physical Education/National Council for the Accreditation of Teacher Education.

School of Health Sciences - Clinical laboratory sciences program accredited by the National Accreditation Agency for Clinical Laboratory Sciences; occupational therapy accredited by the Accreditation Council for Occupational Therapy Education; dietetics accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association.)

School of Nursing - Accredited by the Commission on Collegiate Nursing Education.

School of Social Work - Accredited by the Council on Social Work Education.

Physician Assistant Program – Accreditation-Provisional status granted by the Accreditation Review Commission on Education for the Physician Assistant.

College of Business

The College of Business was formed in 1964 and has grown to be the third-largest college at Eastern. Branded as “Innovative, Applied and Global”, it has been selected as one of the “Best Business Schools” every year since 2003 by the *Princeton Review*. The College is accredited by the AACSB International (The Association to Advance Collegiate Schools of Business), a distinction shared by fewer than 5% of the schools worldwide that grant business degrees. The College offers 10 Undergraduate majors, 10 Undergraduate minors and seven graduate degree programs in four departments: Accounting and Finance, Computer Information Systems, Management, and Marketing. It is the only business school in the country to offer a Master of Science in Integrated Marketing Communications and offers the only graduate program in Human Resources in China. Its Professional Education Center provides executive education for a variety of corporations and non-profit organizations. The College is supported by multiple business advisory boards to ensure the relevance of curriculum and to increase interaction with the business community. Additionally, the College has partnership agreements with Universities in China, Korea, India, Malaysia, Pakistan, Germany, France, Spain, Belgium and Yemen.

The region’s economic development has been enhanced through centers of excellence within the College of Business. **The Center for Entrepreneurship (CFE)**, which supports the development of new enterprise and provides no-cost services to entrepreneurs and small businesses, plays a vital role in the entrepreneurial infrastructure of southeastern Michigan. Annually, the CFE sponsors the SESI Midwest Entrepreneurship Conference, a pitch competition, the Skandalaris Business Plan Competition (attracting more than 100 plans each year in high-school and college categories), and a speaker series. The College and CFE were instrumental in opening a business incubator, partnering with Ann Arbor SPARK (a regional economic development organization), in downtown Ypsilanti. The CFE collaborates closely with the EMU-hosted **Southeast Michigan Region Small Business Development Center (SBDC)** that serves Macomb, Oakland, and Wayne Counties. In 2019, the SBDC served 1203 businesses, facilitated the launch of 43 start-up organizations and 254 new jobs, accounting for new capital investment of \$34.9 million. **The Center for Digital Engagement (CDE)** has amassed a growing reputation as a premier digital-marketing resource for the region through its annual Digital Marketing Workshop (that attracts capacity audiences from around the area) and Summer Digital Clinic, along with recurring seminars/workshops for the area’s business and student communities. In 2020, the CDE’s Digital Clinic received 426 applications from students around the country, from which 48 were selected to serve digital-marketing internships with 24 regional start-up organizations. **The Sales Center** has provided critical professional development for many who now occupy vital roles in the sales forces of organizations through the region. A new **Special Needs Planning and Policy Center** (a collaboration with the College of Health and Human Services) is the first university-affiliated entity in the nation to address planning for financial services (such as trusts and guardianships) for those with special needs – a large and growing population with disproportionate numbers in southeastern Michigan.

In addition to the College’s undergraduate majors and minors and the MBA, its specialized graduate and certificate programs in accounting, business analytics, finance, human resources

and organizational development, information systems, integrated marketing communications, taxation, and web and mobile technologies provide credentials and certification to professionals throughout Southeast Michigan. Through its affiliations with Bloomberg Experiential Learning, the Chartered Financial Analyst Institute, Microsoft Dynamics, SAP University Alliances, the Society for Human Resource Management, and the University Sales Center Alliance, the College offers the state-of-the-art preparation needed by regional businesses. In addition to the world's premier accreditation and recognition by Princeton Review as a Best Business School, the College has amassed specialized rankings for its programs in entrepreneurship, global business, human resources and organizational development, integrated marketing communication, management, sales, and taxation.

The College of Business continues to experience a rich diversity within its undergraduate and graduate students – representing the ethnic and socio-economic diversity of the region as well as having a significant international component. The University's international student population represents over 40 different countries, many of which are also represented at the College of Business. The graduate programs are offered at night to meet the needs of adult learners as well as undergraduate courses that allow students to complete their degree programs in a timely manner while working outside the classroom in the community.

In Spring of 2020, the University received a letter of intent from a private developer to purchase the Gary M. Owen Building – the previous home of the College of Business in downtown Ypsilanti. The University has moved the College of Business instructional and administrative functions to central campus by utilizing open academic space for instruction, and temporary swing space across campus for faculty and staff offices.

The University has begun planning the relocation of the University's College of Business. The University is currently working with the College of Business administration, faculty and staff through an assessment of programmatic needs. The University is currently planning on the renovation to be a multi-year project financed through operational capital plans. Once the programmatic assessment is completed, the renovation and relocation effort will be expected to take three years to complete.

College of Education

For 173 years, Eastern Michigan University's College of Education (COE) has played a major state and national role in the preparation of teachers, other school personnel and related professionals. Eastern has a historic and valued place as the first "Normal School" West of the Allegheny Mountains. Eastern was among the first institutions involved with the preparation of physical and special education teachers. The College of Education is one of the nation's largest preparers of professional education personnel, offering programs at the Bachelor's, Master's, Specialist's and Doctoral degree levels. The College's programs have received a number of national recognitions, are fully accredited and are Charter members of the National Council for the Accreditation of Teacher Education (NCATE), and are approved by the Michigan Department of Education. In almost every instance where a program-specific national recognition exists, the EMU College of Education holds this recognition at the highest level.

Through its Office of Urban, Community, and International Outreach (OUCIO), the College has created numerous partnerships with local school districts that are interested in enhancing a variety of school improvement activities. The OUCIO has also established strong new partnerships with the Detroit Public Schools and the Charles H. Wright Museum of African American History. The office supports a growing number of international partnerships and programs and is home to two distinguished Chairs—the Morris Chair and the Porter Chair. Additionally, the OUCIO and its Minority Achievement Retention and Success (MARS) Program have been instrumental in the recruiting, retention, and achievement of our minority students.

Graduates from the College of Education are highly prized and are aggressively recruited at the national level. Our alumni hold many distinctions, including the Pulitzer Prize, National Student Teacher of the Year and National Teacher of the Year, and serve as presidents or executives of major national professional organizations. In addition, 26 COE graduates have received the prestigious Milken Family Foundation Award for teaching excellence in the classroom. Finally, over 500 of our students become certified teachers each year.

In July 1999, the College of Education was relocated to the John W. Porter Building. This building was a \$13,816,000 renovation of the former campus library that was authorized in Public Act 19 (P.A. 19) of 1993. Since 1999 college resources have been used to refresh and address expanded technology needs. With continued and additional expansion of technology and users, the facility requirements for the EMU College of Education is being addressed through a more stable refreshment program as we continue to deliver our comprehensive and diversified academic programs.

Most programs in the College of Education are nationally accredited by disciplinary organizations, which frequently list standards for quality of program space:

Department of Leadership and Counseling - Leadership programs are accredited by the National Council for the Accreditation of Teacher Education. Community, college and school counseling programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs.

Department of Special Education - Speech-language pathology program accredited by the American Speech-Hearing Association; hearing impaired program accredited by the Council on Education for the Deaf. The department is nationally accredited by the Council for Exceptional Children and the National Council for the Accreditation of Teacher Education.

Department of Teacher Education - Accredited by the National Council for the Accreditation of Teacher Education, the Association for Childhood Education International, the International Reading Association, and the National Association for the Education of Young Children.

GameAbove College of Engineering & Technology

The GameAbove College of Engineering & Technology (GACET) is dedicated to excellence in the delivery of 27 professional programs in Mechanical Engineering, Applied Engineering Technology (10 programs), Applied Management (10), Applied Design (5) and in Military Science and Leadership. In 2017, the University's Board of Regents approved new programs in Mechanical Engineering, and Computer and Electrical Engineering. In February 2020, the University approved new programs in Civil Engineering. These new programs provide further evidence of the University's dedication to building out a comprehensive engineering program within the GACET.

The GACET is also proud of its research and training activities in textiles, polymers and coatings, and police and fire staff training. Program offerings are based on the philosophy that applied, project-based problem solving enhances learning and that application of knowledge is a key driver in the creation and discovery of new knowledge. Graduates of GACET programs are well prepared to function in an ever-changing, global technological environment and to assume leadership roles in organizations, corporations, government agencies, and institutions of higher education throughout the world. Today's GACET has become an integral component of the University's mission, allowing students to be better prepared to compete globally. With a reputation for achievement and innovation, the GACET continues to meet the changing needs of students and employers. GACET programs are ideal "engines" for addressing state and federal government's priorities for enhancing Science, Technology, Engineering and Mathematics (STEM) education and the country's STEM-educated work force.

The University and its Board of Regents recognize that the creation of the new Mechanical, Computer, Electrical and Civil Engineering programs is important as it represents a growth opportunity for the University. Beyond the campus, these programs are important as the graduates of these programs are in high demand within the state's employment needs and demographics. By modifying existing programs and creating new programs, GameAbove College of Engineering & Technology faculty respond quickly to industrial demands for trained professionals. A great barrier to program development is the shortage of appropriate facilities and the less-than-adequate teaching and laboratory environments for instructional and research activities.

The GameAbove College of Engineering & Technology operates within three buildings.

- The Coatings Research Institute (1987; 8,000 s.f.), the newest building, is small and only provides laboratory spaces for coatings research and analysis.
- Sill Hall (1965; 107,335 s.f.), the largest building, was originally programmed for fine arts and industrial arts activities. Today, the industrial labs are still used for engineering technology and construction management courses, but the fine arts spaces were long ago converted for computer, electronics, and chemical laboratories, and classrooms. The University funded a \$40 million renovation project to modernize, update and expand Sill Hall. This project was completed for the Fall 2020 semester.

- Roosevelt Hall (1924; 75,639 s.f.) was originally programmed as a high school. In 1973, it was renovated to accommodate Military Science and home economics activities. Today, many of the spaces have been renovated again, with various levels of success, to accommodate computer laboratories, design studios and classrooms. Roosevelt Hall is the State Capital Outlay Request for this submission.

EMU addressed the needs of Sill Hall with a \$40 million self-funded capital project. However, even after completion, the University will still be undersized for engineering program space compared to peers and industry averages. Following the Sill Hall renovation and expansion, EMU expects to have 88 gsf/student, compared to the 100 gsf/student that comparable universities have for the programs within the GameAbove College of Engineering/Technology.

In 2016, the University commissioned a planning study for the GameAbove College of Engineering & Technology. The planning effort created a Master Plan for the college addressing current shortfalls in space allocation and facility condition and abilities, as well as providing options to meet current and planned growth for the new and planned programs such as the engineering and technology programs. The Master Plan recommended several small, short-term projects, as well as focused attention and detail to major renovation and expansion projects:

- Renovation and expansion of Sill Hall; to “right-size” facility space and infrastructure for current programs and the immediate needs of the added engineering programs. This was completed for the Fall 2020 semester,
- Renovation of Roosevelt Hall to right-size and upgrade facilities for many of the other advanced technology programs within the GameAbove College of Engineering & Technology, and
- The University recognizes that following the completion of the Roosevelt Hall renovation, additional expansion is necessary for the further expansion of the GameAbove College of Engineering & Technology’s engineering programs. The University continues to assess the possible options for where this is most beneficial.

The College projects growth from the current 2,100 students to approximately 3,800-4,000 students (an increase of more than 75%) in the next 10-15-year period. Demographic studies have indicated approximately 71% of Eastern Michigan students stay and work in Michigan following graduation.

In summary, GACET programs and courses require significant hands-on laboratory resources. GACET has done well in maximizing its use of its presently allocated space; however, to truly allow students to achieve their potential as STEM-educated graduates, provisions must be made for program growth and modernization of program spaces and infrastructure.

Other Academic Units

Engage EMU

The Office of Engage@EMU is the University's front door to cultivating and navigating relationships and partnerships between the University and business, education and community. In FY20, Engage operated 50 on-going grants in education, community and economic development, health & safety, prevention, and academic service-learning and oversaw 453 unique personnel including educators, consultants, students, full-time administrators and professional staff, and faculty.

The staff in Engage are University connectors, conveners and collaborators working with government, schools, non-profits, businesses and individuals. Recent examples include: Census & Voter Information and Engagement, Get Out The Vote (GOTV) Coordination, and the EMU PPE Project which created and provided over 8,000 masks and face shields to the city of Ypsilanti, Ypsilanti Community Schools and Michigan Medicine. Engage staff serve on several organizational boards such as the Rotary, A2Y Chamber, ULink, Ann Arbor YMCA, Dollars for Scholars, Washtenaw Area Council for Youth (WACY), Washtenaw Futures (LCAN), and the Ann Arbor Area Community Foundation Cultural and Economic Development Committee.

Engage is organized in three areas: **Business, Academic and Community.**

Business. Professional Programs and Training (PPAT) is housed under business. Generating \$700,000 in annual gross revenue, EMU Professional Programs & Training (EMU PPAT) serves over 1,500 workers, managers and professionals each year in non-credit professional development, credentialing, and test prep programs in topics such as occupational safety and health, quality and continuous improvement, polymers and coatings, education, social work, nonprofit management, human resource management, business and technology.

Credentialing through EMU PPAT includes continuing education units (CEUs) as well as industry-specific credentials such as State Continuing Education Clock Hours (SCECH) for educators through the Michigan Department of Education (MDE) and social work continuing education through the EMU School of Social Work and the Michigan Social Work Collaborative.

Test-prep includes programs for the GRE, GMAT and LSAT as well as industry certifications such as Society for Human Resource Management (SHRM) and Project Management Professional (PMP.) EMU PPAT programs are offered in multiple formats. With the close of EMU satellite sites in Livonia, Brighton and Detroit, open-enrollment professional programs have recently been held on-campus in several garden level Boone Hall professional classrooms dedicated for this purpose or, occasionally, other available campus venues. Online and virtual programs are held in EMU's Canvas Learning Management System and Zoom. Contract training is held on-site for local and regional companies. With the anticipated 2021 College of Business move to Boone Hall, there is a need for dedicated physical / outward facing space in which to operate these programs.

PPAT along with our Testing Center require an accessible, vendor compliant, professional space. Such a space is critical to EMU's focus in cultivating more non-credit initiatives and business engagement programs.

Academic. Under our academic banner we house our academic service learning programs, courses and training (since 1997) as well as grants dedicated to supporting the integration of community and teaching. Annually we support over 30 courses which integrate community practice and programming.

Also, under the academic banner is Eastern Scholars, our concurrent enrollment program and Camps. Our Scholars' program provides EMU college courses in high schools around the state face-to-face or virtually. Our Camps program brings outside community to our campus where we utilize the assets of EMU, faculty expertise, students and facilitates to provide unique camp experiences middle-school through high school.

Community. Under our community area, we operate notable, longstanding community-based programs such as: Upward Bound, The Family Empowerment Program (a supportive services program for all Ypsilanti Housing Commission residents), Digital Inclusion (a computer upcycling program), EMU Bright Futures (out-of-school programming located in 25 schools and three districts, SEMIS (teacher development program), and the Legal Resource Center. We also foster small initiatives in areas such as digital literacy for seniors (Digital Connecting Corps) and college access (College Coaching Corps), and launch and operate short term initiatives such as, Ypsi Live dedicated to providing 450 families in Ypsilanti internet access.

In FY20, Engage@EMU (primarily under the Community area) we were awarded \$5.2 million in grant funds.

As a community and university, professional training center, a testing center, as well as being EMU's University's most outward facing office, a space/facility whether in Detroit or in Ypsilanti is critical to Engage@EMU's continued growth and affirmation of the University mission to be a school dedicated to, "local and global impact".

Library

The Bruce T. Halle Library houses the University Library, Bruce K. Nelson Faculty Development Center, Holman Learning Center, Academic Technology and Computing Services and Eagle Cafe. With over 949,000 volumes, 200 indexes and databases, and 20,000 full-text journals, the library provides an array of resources that supports teaching, learning and research to facilitate the intellectual, scientific, artistic, cultural, and service pursuits of the University. The 273,715 square foot library offers 2,250 seats for faculty and students, over 500 computers in labs and public areas, 1,500 network ports, and wireless access to Internet throughout the Library.

At the time when Halle Library opened in 1998, several decisions were made due to budget constraints: (1) to limit the size of the Automatic Retrieval Collection (ARC), (2) to limit the size of the University Archives, (3) to forego proper environmental controls in the University Archives, and (4) to forego proper environmental controls in the “Head End” room which houses major servers, network infrastructure, and the like.

A capital project to meet the full capacity of the Automatic Retrieval Collection (ARC) has been completed. The addition of two (2) bays increased the capacity of the ARC by 200,000 volumes. There was also an update to the ARC’s decade-old hardware in the project.

The University’s interest in showcasing its accomplishments and the desire to expand the conception of the University Archives to a digital repository both require different and more significant space utilization than the current area provides. Every year that we delay proper environmental controls for these materials is decreasing their life expectancy. A state-of-the-art Archives/Special Collections area with room for a public exhibit and museum-like display area would cost approximately \$2,500,000. A recent project addressed the needs of the environmental controls within the archives.

Approximately \$1,450,000 would be needed to add necessary levels of electrical power and air conditioning in the Head End Room, as well as to replace the outdated sprinkler system with a fire suppression system more appropriate to a room housing so much high-tech equipment. We have been fortunate in avoiding major system failures or fires in that room to date, but the safety risks and the potential for system failure are of continued concern.

The Halle Library is now eighteen years old, and was used heavily in FY2012 as “swing space.” Worn carpeting was noted as far back as the 2006 program review of the library, and carpeting is even more worn since the end of the “swing space.” Furniture has worn out, and paint has faded. There has been continual rethinking of the use of space, but minimal monies available to do the changes in a manner that befits the stature of the building on the campus. Approximately \$1,450,000 is still needed to catch up on the routine maintenance of the building that had been delayed.



ENROLLMENT AND FACULTY/STAFF

EXECUTIVE SUMMARY

CURRENT AND HISTORICAL STUDENT ENROLLMENT

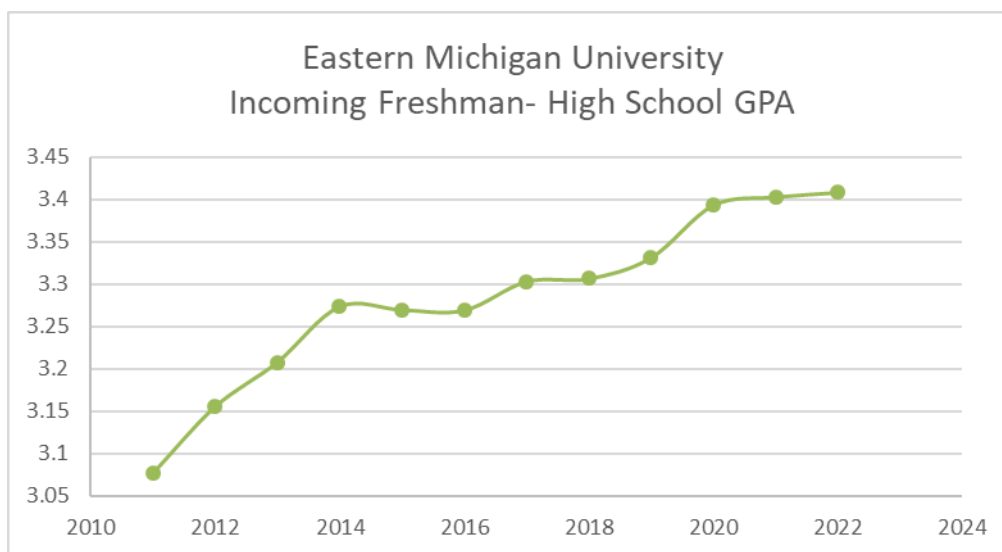
FUTURE ENROLLMENT

AVERAGE CLASS SIZE

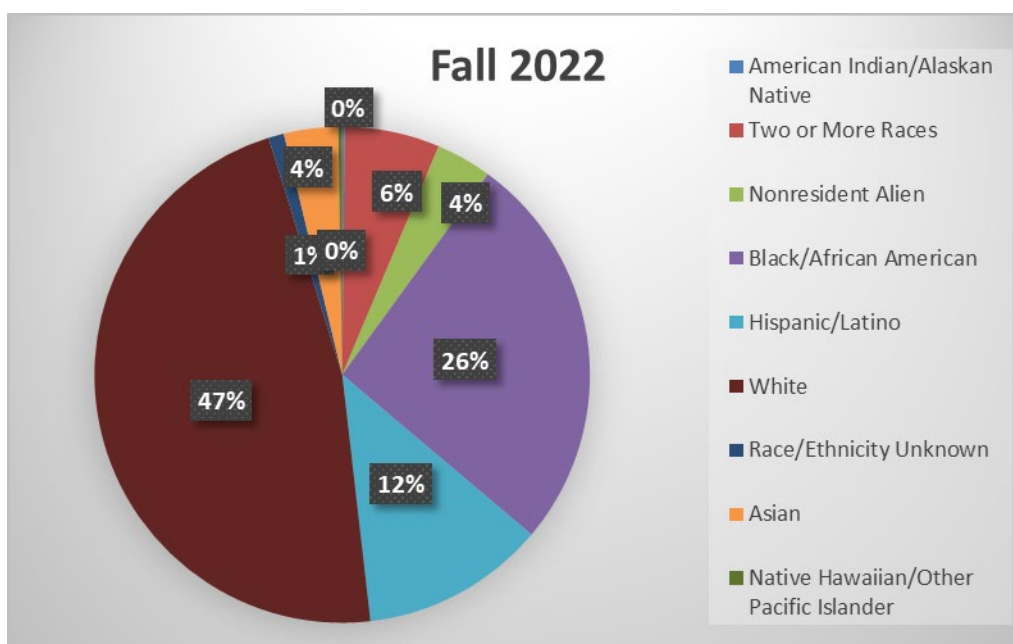
STAFFING

EXECUTIVE SUMMARY

In the fall of 2022, EMU enrolled a strong class of 1,978 first-year students. This year's incoming first-year class is well-prepared academically. The average GPA of incoming freshmen is 3.41, up from 3.16 in 2012.



EMU's entering first-year class also shows a highly diversified mix at Eastern. Forty-Two percent (42%) of the incoming first-year class self-identify as minoritized students.



CURRENT AND HISTORICAL ENROLLMENT

In Fall 2022, among the total enrollments of 14,048 students, 4,567 (or 32.51%) registered for courses offered on-campus only, 2,928 are registered for online only (20.84%), 90 (0.64%) students are registered at satellite campuses only, and 6,443 (46.01%) are registered in a combination of courses from the main campus, satellite campuses, or online.

Fall 2022 Enrollment (Start of the Term Census)

Level	Combination	On-Campus	Online	Satellite	Grand Total
UG	5,891	3,699	1,967	60	11,617
GR	572	868	961	30	2,640
Grand Total	6,463	4,567	2,928	90	14,048

The University has continued to maintain strong enrollment from first-year student classes, but experienced overall enrollment declines for the past five years primarily due to the policy shift on Federal Pell grants, lower numbers of transfer and graduate students, overall decline of high school graduates in the State, and the COVID-19 pandemic. Additionally, EMU made a holistic effort to help students complete a degree faster. Despite of the enrollment decline, EMU has awarded a steady and record number of degrees in the past 5 years. In addition, FTIAC 4-, 5-, and 6-year degree completion rates have increased significantly in recent years (see tables below).

Degrees Awarded by Academic Year

AY2018	AY2019	AY2020	AY2021	AY2022
4,678	4,700	4,470	4,313	3,962

Trends of FTIAC 4-, 5-, 6-Year Completion Rate (in %)

Cohort Start Term	Cohort Size	4-Year	5-Year	6-Year
Fall 2008	2,167	12.9	27.0	36.6
Fall 2009	2,196	13.1	30.9	40.1
Fall 2010	1,955	13.0	32.3	40.7
Fall 2011	2,119	14.1	31.7	40.4
Fall 2012	2,612	16.6	36.8	45.1
Fall 2013	2,848	19.1	38.9	46.1
Fall 2014	2,588	19.9	40.3	46.9
Fall 2015	2,846	23.1	41.4	48.1
Fall 2016	2,785	21.5	38.7	45.4
Fall 2017	2,783	22.9	40.4	
Fall 2018	2,375	24.0		

Fall Enrollment Trends (Headcount and Student Credit Hours by Level)

	Fall Headcount Enrollment		Fall Credit Hours	
Term	Undergraduate Students	Graduate Students	Undergraduate Credit Hours	Graduate Credit Hours
Fall 2017	16,997	3,316	204,974	21,258
Fall 2018	15,730	3,108	189,093	20,455
Fall 2019	14,872	2,942	176,087	19,350
Fall 2020	13,572	2,752	160,672	18,855
Fall 2021	12,730	2,640	151,656	17,999
Fall 2022	11,617	2,431	137,881	16,453

FTIAC Enrollment Trends

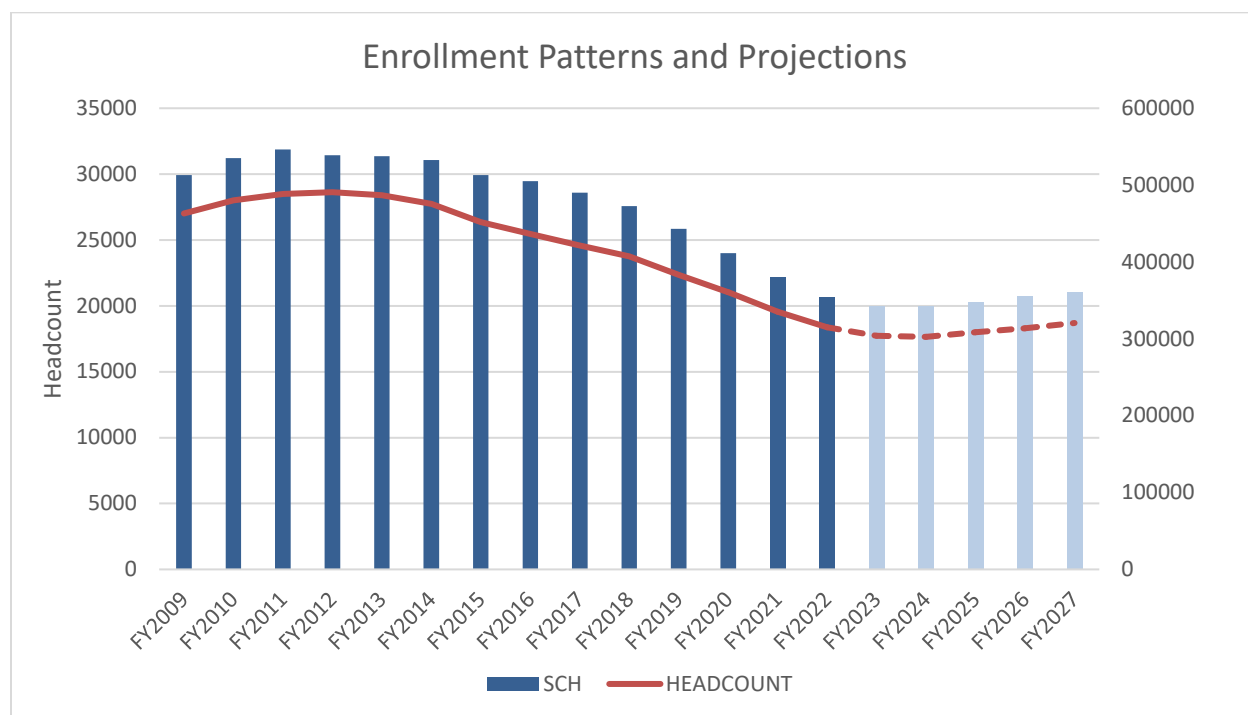
Term	New FTIAC
Fall 2017	2,781
Fall 2018	2,365
Fall 2019	2,123
Fall 2020	1,855
Fall 2021	2,245
Fall 2022	1,978

ENROLLMENT PATTERNS

The University has continued to maintain strong enrollment from first-time freshman classes but experienced overall enrollment declines for the past few years primarily due to the policy shift on Federal Pell grant, and lower numbers of transfer and graduate students, and the COVID-19 pandemic. With the implementation of multiple new enrollment strategies, including new program development and exploring new enrollment markets, we anticipate the enrollment trend will become stabilized in the upcoming few years.

Future Enrollment

With the implementation of multiple new enrollment strategies, including new program developments and exploring new enrollment markets, we anticipate the enrollment trend will become stabilized in the upcoming few years.



AVERAGE CLASS SIZE

The average class size is based on total course enrollment divided by the total number of course sections, excluding courses which are Field Experience or involve individual advising. Over the past five years the University has maintained a stable average class size rate, which is attributable to the University experiencing an overall steady number of FTIAC students in recent years offsetting other decreases in overall enrollment. The University does not expect average class size to materially change in the future due to our mission and planned programmatic changes.

Fall Terms	Average Class Size
2017	23.2
2018	21.9
2019	22.1
2020	21.6
2021	22.3
2022	21.4

INSTRUCTIONAL STAFF/STUDENT AND ADMINISTRATIVE STAFF/STUDENT RATIOS

Eastern Michigan University
Full-Time-Equated (FTE)
Faculty, Staff, and Students
Fall 2021 Official Record

FACULTY FTE			Total	Ratio
College Description	FT Headcount	PT FTE	Faculty FTE	Student FTE to Faculty FTE
College of Arts & Sciences	337	103	440	11.2
College of Business	69	7.3	76.3	21.9
College of Education	51	20.7	71.7	20.9
College of Health & Human Serv	109	50.7	159.7	17
GameAbove College of Engineering & Technology	50	13.7	63.7	22.2
Grand Total	616	195.4	811.4	16.0

Instructional Faculty FTE includes full-time faculty, full-time lecturers, instructional part-time lecturers, and Instructional graduate assistants. It does not include Library personnel.

Full-time Headcount equals 1 FTE

Part-time FTE equals the number of headcount divided by three.

STAFF FTE			Total	Ratio
College Description	FT Headcount	PT FTE	Staff FTE	Student FTE to Staff FTE
College of Arts & Sciences	63	10.11	73.11	67.2
College of Business	17	0.875	17.875	93.4
College of Education	24	6.6	30.6	49
College of Health & Human Serv	26	23.18	49.18	55.1
GameAbove College of Engineering & Technology	15	17.98	32.98	42.9
Grand Total	145	58.745	203.745	63.8

Staff FTE includes administrative, professional-technical, clerical, and hourly employee

It does not include Library personnel, graduate assistants and student employee.

Full-time Headcount equals 1 FTE.

Part-time FTE equals the sum of the percent of appointments.

STUDENT FTE			Total
College Description	FT Headcount	PT FTE	Student FTE
College of Arts & Sciences	4,064.0	848.0	4,912.0
College of Business	1,283.0	385.6	1,668.6
College of Education	906.0	593.5	1,499.5
College of Health & Human Serv	2,040.0	668.1	2,708.1
GameAbove College of Engineering & Technology	1,115.0	301.5	1,416.5
Academic Affairs	513.0	283.9	796.9
Grand Total	9,921.0	3,080.6	13,001.6

FT Student Headcount equals 1 FTE

PT Student FTE equals the total number of credit hours divided by the number of hours for the semester

All undergraduate credit hours were divided by 12 and all graduate credit hours were divided by 9.

Eastern Michigan University makes great efforts to improve institutional effectiveness and operational efficiency. One of the four overarching themes in the EMU's new strategic plan is institutional effectiveness. Since the 15% state appropriation reduction in FY11/12 through FY16/17, the University's operating expenses have increased annually by only 1.03% and more recently from FY16/17 to FY17/18, its operating expenses have essentially been held flat (see table below). As part of this effort, EMU constantly assesses its staffing needs based on enrollment, and delivery method of education. It is expected that EMU will maintain a relatively stable number of staff and faculty members. Online courses and degree offerings will continue to grow, which may shift some priorities of staffing in support units.

Trends of EMU Total Operating Expenses

Fiscal Year	Total Operating Expenses (in '000's)
FY10/11	\$332,686
FY11/12	\$332,625
FY12/13	\$331,187
FY13/14	\$339,052
FY14/15	\$344,310
FY15/16	\$352,904
FY16/17	\$353,300
FY17/18	\$345,860
FY18/19	\$355,271
FY19/20	\$333,529
FY20/21	\$326,858
FY21/22	\$342,717



FACILITY ASSESSMENT

EXECUTIVE SUMMARY

BUILDING AND CLASSROOM UTILIZATION RATES

ARCHITECTURAL SYSTEMS

MECHANICAL SYSTEMS

ELECTRICAL SYSTEMS (BUILDINGS)

ELEVATOR SYSTEMS

FIRE PROTECTION SYSTEMS

ELECTRIC SUPPLY AND DISTRIBUTION SYSTEMS

SITE WORK AND DRAINAGE SYSTEMS

ENERGY PLAN GOALS

ROADS, PARKING LOTS AND STRUCTURES

UNIVERSITY LAND

LAND OBLIGATED TO THE STATE BUILDING AUTHORITY

EXECUTIVE SUMMARY

The Physical Plant department at Eastern Michigan University continues to develop and implement what is clearly stated in our motto: “providing an environment for education first”.

Our comprehensive approach to managing the facilities portfolio starts with conceptual campus planning reflective of our collegian mission. We recognize and embrace the benefits of efficiency, by constructing, augmenting and maintaining facilities that are functional, adaptable and energy efficient. This results in the implementation of construction and renovation projects that take into consideration all the operational aspects of building and facilities management for years to come.

Our administrative team understands the real constraints associated with available funding and recognizes the potential to financially neglect the facility’s needs to meet available budget funding. Consequently, we have collectively formulated a plan to prioritize and balance our facility’s needs with budget. This remains a prudent path to take, both financially and operationally.

The tendency to ignore or postpone the needs of the University’s physical assets as we go through these times of fiscal constraint is recognized by this same team. In support of our mission today, and for years to come, our team emphasizes and promotes the need to retain a realistic financial commitment to the relative long-term soundness and effectiveness of our facilities.

By establishing a detailed base line database that is reflective of our existing facilities conditions, we have completed the essential first step in developing a sound facilities management strategy. Our database is well organized, realistic, defensible, and is used as our foundation to plan, fund and execute realistic and meaningful facilities improvements for the benefit of our students, faculty and staff.

As a part of a continuous improvement process, all identification and documenting of existing conditions of University equipment and building components continues to be recorded within the Asset Preservation module of our Computerized Maintenance Management System. Hence, the establishment of our detailed base line database that is reflective of our existing facilities conditions.

It is important to emphasize that we have field verified this deferred maintenance calculation by undergoing a rigorous review of the existing facilities conditions. This auditing process continues to be ongoing and that any adjustments that were made within this Capital Outlay submission were based on actual conditions found.

This Capital Outlay submission, as with others in the past, is inclusive of projects of over \$1M dollars in capital that is considered essential for the day to day operations of the University’s facilities. Mandated actions, required for code compliance, such as the testing of life safety

equipment, and in some cases chemical treatments that are required to operate and maintain essential equipment and building components, have been itemized and included within this report.

Lastly, as was mentioned in previous submissions, a significant reduction in deferred maintenance was accomplished with the self-funded projects including; the \$90 million Mark Jefferson Science Complex Project, the \$15 million Rackham Hall Renovation Project and the \$40 million Sill Hall Renovation and Expansion project. Simultaneously, EMU teamed with State Capital Outlays have completed the \$42 million Pray-Harrold Building Renovation and the \$40 million Strong Hall Renovation. These projects have made a significant dent into the University's deferred maintenance schedule. While we continue to work towards a reduction of deferred maintenance through smaller local capital efforts our goal now is to continue this significant reduction in deferred maintenance by modernizing and expanding Roosevelt Hall. Roosevelt Hall is included amongst the largest liabilities of deferred maintenance needs on campus.

BUILDING AND CLASSROOM UTILIZATION RATES

Identify building/classroom usage rates for peak (M-F, 10-3), and off-peak (M-F, 8-10am, 3-5pm), evening, and weekend periods.

During 2017 and 2018, a Space Utilization study was conducted regarding building and classroom utilization rates; that is, the percentage of rooms used and the percentage that are at capacity relative to academic facilities. Results of the study, based on student enrollment counts from the Fall 20017 semester are as follows:

Time Range	Average %	Range in %
Peak Hours (M to F, 10 am to 3 pm)	65%	10% (F at 12) to 82% (W at 12)
Non-Peak Mornings (M to F, 8 am to 10 am)	39%	2% (F at 8) to 71% (M at 9)
Non-Peak Afternoons (M to F, 3 pm to 5 pm)	49%	4% (F at 4) to 78% (W at 3)
Non-Peak Evenings (M to F, after 5 pm)	42%	2% (F at 8) to 66% (T at 6)
Non-Peak Weekends (S and SU, 8 am to 6 pm)	4%	0% (SU at 8) to 11% (S at 10)
Monday-Thursday Only		
Peak Hours (M to R, 10 am to 3 pm)	78%	70% (M at 1) to 82% (W at 12)
Non-Peak Mornings (M to R, 8 am to 10 am)	47%	21% (R at 8) to 71% (M at 9)
Non-Peak Afternoons (M to R, 3 pm to 5 pm)	60%	40% (T at 4) to 78% (W at 3)
Non-Peak Evenings (M to R, after 5 pm)	22%	33% (R at 8) to 66% (T at 6)

In Fall of 2019, the Student Station Occupancy (the percent of seats occupied when a room is in use) averages 66%. The consultant preparing this study indicated that “when an institution reaches and exceeds the 80% level of classroom use, the more difficult it becomes to find available classrooms in the right geographical locations with the right classroom capacities.”

Due to the construction activities of two large classroom buildings on campus during the time of this study (Strong and Sill Hall), the Space Utilization rates are slightly altered from normal conditions.

**General Fund Building
Age / Replacement Report
Table 1**

Name	Primary Use	Floors	Sq./ft.	Date Built	Architectural	Mechanical	Electrical	2022 Building Replacement Value
Mark Jefferson***	academic	5	262,273	1969	2011	2011	2011	\$ 183,695,957
Halle Library	academic	5	273,715	1998	1998	1998	1998	\$ 132,811,744
Pray Harrold***	academic	7	237,108	1967	2011	2011	2011	\$ 115,049,329
Owen (COB)**	academic	5	126,000	1990	1990	1990	1990	\$ 73,941,819
Porter	academic	3	143,775	1966	1999	1999	1999	\$ 69,762,375
Sill***	academic	2	107,335	1965	2020	2020	2020	\$ 62,356,240
Warner	academic	2	95,349	1964	1964	1964	1964	\$ 46,265,155
Alexander	academic	4	86,900	1980	1980	1998	1980	\$ 42,165,539
Strong	academic	3	80,713	1957	1957	1957	1957	\$ 39,163,489
Roosevelt	academic	2	75,639	1924	1973	1973	1973	\$ 36,701,487
Marshall	academic	3	70,324	2000	2000	2000	2000	\$ 34,122,548
Judy Sturgis Hill	academic	2	58,205	1959	1959	1959	1959	\$ 28,242,177
Rackham***	academic	2	45,890	1938	2015	2015	2015	\$ 22,266,704
Sherzer	academic	3	35,253	1903	1990	2011	1990	\$ 17,105,429
Ford	academic	2	33,333	1929	1968	1968	1968	\$ 16,173,808
Kresge Center	academic	1	12,606	1974	1974	1974	1974	\$ 6,116,672
Paint Research**	academic	1	8,000	1987	1987	1987	1987	\$ 5,419,075
Parsons Center	academic	1	9,948	2007	2007	2007	2007	\$ 5,046,484
Briggs	academic	1	9,500	1937	1990	1990	1990	\$ 4,609,581
Terrestrial and Aquatic Center	academic	1	5,200	1998	1998	1998	1998	\$ 2,523,139
Sculpture Studio***	academic	1	4,648	1959	2015	2015	2015	\$ 2,255,298
Honors College	academic	2	21,405	1965	2005	2020	2005	\$ 1,447,664
One Room Schoolhouse**	academic	1	900	1905	1988	1988	1988	\$ 1,216,938
Heating Plant**	non-academic	3	23,856	1951	1951	2017	2017	\$ 80,673,629
McKenny	non-academic	4	107,103	1931	1992	1992	1992	\$ 51,968,421
800 Lowell	non-academic	2	168,000	1901	1956	1956	1956	\$ 49,900,200
Goddard	non-academic	5	75,856	1955	1955	1955	1955	\$ 33,773,260
King	non-academic	4	61,450	1939	1939	1939	1939	\$ 33,106,738
Jones	non-academic	5	70,491	1948	1948	1948	1948	\$ 31,384,609
Pierce	non-academic	4	61,275	1948	1990	1990	1990	\$ 29,731,800
Boone	non-academic	3	45,210	1914	2000	2000	2000	\$ 21,936,755
Welch	non-academic	4	36,840	1896	1986	1986	1986	\$ 17,875,471
Pease	non-academic	2	30,181	1914	1994	1994	1994	\$ 14,644,397
Physical Plant	non-academic	1	25,300	1995	1995	1995	1995	\$ 12,276,043
Wellness Center	non-academic	1	15,548	2019	2019	2019	2019	\$ 8,692,750
Hover	non-academic	2	11,021	1941	2002	2002	2002	\$ 7,462,965
University House	non-academic	2	10,700	2003	2003	2003	2003	\$ 6,225,459
Central Stores	non-academic	1	10,140	1972	1972	1972	1972	\$ 4,920,122
Starkweather	non-academic	2	8,706	1896	1996	1991	1991	\$ 4,224,317
Central Operations	non-academic	1	5,665	1969	2012	2012	2012	\$ 2,156,258
emu House	non-academic	2	1,434	1925	2014	2014	2014	\$ 327,629
TOTAL			2,572,795					\$ 1,359,739,477
Average Cost/sq. ft. =								\$ 529

Average Year Built	1955				
Average Building Age (Years)	66				
Average Year Built Weighted by Sq. Ft.	1967	1996	1998	1997	
Average Age Weighted by Sq. Ft. (Years)	54	25	23	24	
Average Architectural, Elect., Mech. (Years)	24				

** Indicates Unique Building Replacement Costs
 ***Recent Major Renovation/Addition

Note:
 Replacement costs reflect the cost to replace a building with "like-kind" systems. They do not include system upgrades to deliver more sophisticated curriculum or the "soft costs" and staging/phasing costs.

Building Deficiencies Priorities by Category
Table 2

I. Urgent

1. If not accomplished, will jeopardize the continued usefulness of the facility and may result in serious and irrevocable loss or damage

II. Required

If not accomplished, may jeopardize the continued usefulness of the facility

General Fund Building Deficiencies Cost Summary for FY 2024 by Priority

	<u>Urgent</u>	<u>Required</u>	<u>Total</u>
Total Campus Deficiencies Including Sitework, Drains, & Utility Infrastructure	\$261,233,975	\$59,074,627	\$320,308,602

Table 3

General Fund Building Deficiency Cost Summary for FY 2024 by System

	<u>Architectural</u>	<u>Electrical</u>	<u>Elevators</u>	<u>Fire Protection</u>	<u>Mechanical</u>	<u>Site Work</u>	<u>Total</u>
General Fund Buildings	\$94,098,556	\$44,451,020	\$5,727,027	\$38,598,471	\$110,908,394	\$26,525,134	\$ 320,308,602

General Fund Building Deficiency Cost Summary by System

Table 4

Building	Primary Use	Architectural	Electrical	Elevators	Life Safety	Mechanical	Site Work	Grand Total
Warner	academic	\$ 10,650,297	\$ 2,458,851	\$ 200,242	\$ 2,555,670	\$ 9,349,476	\$ -	\$ 25,214,536
Owen (COB)	academic	\$ 5,430,598	\$ 380,461	\$ 453,379	\$ 1,408,371	\$ 7,348,895	\$ 670,144	\$ 15,691,849
Alexander	academic	\$ 9,244,195	\$ 225,000	\$ 373,786	\$ 109,466	\$ 4,551,609	\$ -	\$ 14,504,056
Roosevelt	academic	\$ 5,447,297	\$ 1,370,478	\$ 221,723	\$ 1,374,998	\$ 4,015,856	\$ 220,267	\$ 12,650,619
Judy Sturgis Hill	academic	\$ 2,399,418	\$ 1,204,601	\$ 109,466	\$ 700,848	\$ 2,830,339	\$ -	\$ 7,244,672
Ford	academic	\$ 1,881,824	\$ 1,134,707	\$ -	\$ 667,475	\$ 2,359,414	\$ -	\$ 6,043,419
Sherzer	academic	\$ 2,974,666	\$ 323,689	\$ 225,393	\$ 489,926	\$ 195,272	\$ -	\$ 4,208,946
Porter	academic	\$ 864,568	\$ 320,267	\$ 374,170	\$ 73,422	\$ 3,352,647	\$ -	\$ 4,985,074
Halle Library	academic	\$ 2,234,465	\$ 1,095,365	\$ 432,423	\$ 162,864	\$ 3,073,162	\$ -	\$ 6,998,279
Kresge Center	academic	\$ 823,638	\$ 309,708	\$ -	\$ 185,558	\$ 728,301	\$ 94,454	\$ 2,141,659
Briggs	academic	\$ 837,240	\$ -	\$ -	\$ 289,684	\$ 918,015	\$ -	\$ 2,044,939
Paint Research	academic	\$ 533,260	\$ 66,747	\$ -	\$ 135,752	\$ 1,017,596	\$ 150,000	\$ 1,903,356
Marshall	academic	\$ 647,450	\$ 263,471	\$ 367,111	\$ 73,422	\$ -	\$ -	\$ 1,351,454
Terrestrial and Aquatic Center	academic	\$ 345,878	\$ 84,102	\$ -	\$ 104,126	\$ 741,027	\$ -	\$ 1,275,133
Parsons Center	academic	\$ 906,758	\$ 62,969	\$ -	\$ -	\$ -	\$ -	\$ 969,727
Mark Jefferson	academic	\$ 280,212	\$ 855,582	\$ -	\$ 73,422	\$ 249,668	\$ -	\$ 1,458,885
Pray Harrold	academic	\$ 500,479	\$ 566,747	\$ -	\$ -	\$ 3,072,087	\$ -	\$ 4,139,314
Honors College	academic	\$ 318,938	\$ -	\$ -	\$ 200,242	\$ 50,000	\$ -	\$ 569,181
One Room Schoolhouse	academic	\$ 112,085	\$ -	\$ -	\$ 69,417	\$ -	\$ -	\$ 181,502
Rackham	academic	\$ 275,939	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 275,939
Sill	academic	\$ 220,000	\$ -	\$ -	\$ -	\$ 225,000	\$ -	\$ 445,000
Strong	academic	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000
Sculpture Studio	academic	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Campus	non-academic	\$ 8,995,920	\$ 12,823,066	\$ -	\$ 8,729,681	\$ 14,961,304	\$ 20,627,305	\$ 66,137,276
Goddard	non-academic	\$ 9,317,945	\$ 5,546,714	\$ 343,082	\$ 4,365,284	\$ 10,455,322	\$ 1,134,707	\$ 31,163,053
Jones	non-academic	\$ 8,086,388	\$ 5,071,338	\$ 437,329	\$ 4,238,731	\$ 10,003,909	\$ 1,259,543	\$ 29,097,237
McKenny	non-academic	\$ 1,419,577	\$ 1,653,270	\$ 531,598	\$ 3,150,480	\$ 9,471,826	\$ -	\$ 16,226,751
King	non-academic	\$ 3,374,651	\$ 2,064,558	\$ 376,456	\$ 2,316,137	\$ 4,569,682	\$ -	\$ 12,701,484
Pierce	non-academic	\$ 1,603,890	\$ 2,079,449	\$ 370,267	\$ 1,237,498	\$ 6,522,349	\$ 570,502	\$ 12,383,955
Heating Plant	non-academic	\$ 1,903,209	\$ 225,000	\$ -	\$ 1,153,282	\$ 4,018,468	\$ 94,454	\$ 7,394,413
Welch	non-academic	\$ 3,640,050	\$ 578,337	\$ 232,423	\$ 2,515,530	\$ 2,545,926	\$ 188,908	\$ 9,701,174
Pease	non-academic	\$ 2,392,456	\$ 1,661,506	\$ 233,616	\$ 576,698	\$ 823,664	\$ -	\$ 5,687,939
Starkweather	non-academic	\$ 2,816,677	\$ 516,625	\$ -	\$ 452,548	\$ 1,715,410	\$ -	\$ 5,501,260
University House	non-academic	\$ 1,252,144	\$ 737,249	\$ -	\$ -	\$ 349,635	\$ 1,133,762	\$ 3,472,791
Boone	non-academic	\$ 1,208,062	\$ 126,042	\$ 319,442	\$ 818,159	\$ 225,000	\$ 168,127	\$ 2,864,833
Physical Plant	non-academic	\$ 311,697	\$ 206,091	\$ -	\$ 56,068	\$ 678,033	\$ -	\$ 1,251,889
Central Operations	non-academic	\$ 129,717	\$ 255,655	\$ -	\$ -	\$ 316,990	\$ -	\$ 702,362
Hover	non-academic	\$ 188,971	\$ -	\$ 125,121	\$ 220,267	\$ 172,512	\$ -	\$ 706,870
Central Stores	non-academic	\$ 427,246	\$ -	\$ -	\$ 73,422	\$ -	\$ -	\$ 500,668
emu House	non-academic	\$ 100,751	\$ 33,374	\$ -	\$ 20,024	\$ -	\$ -	\$ 154,149
800 Lowell	non-academic	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 212,961	\$ 212,961
Wellness Center	non-academic	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Building Deficiencies		\$ 94,098,556	\$ 44,451,020	\$ 5,727,027	\$ 38,598,471	\$ 110,908,394	\$ 26,525,134	\$ 320,308,602

General Fund Building Deficiency Cost Summary by Priority
Table 5

Building	Primary Use	Urgent	Required	Grand Total
Warner	academic	\$ 19,484,507	\$ 5,730,029	\$ 25,214,536
Owen (COB)	academic	\$ 15,521,832	\$ 170,017	\$ 15,691,849
Alexander	academic	\$ 11,506,549	\$ 2,997,507	\$ 14,504,056
Roosevelt	academic	\$ 8,527,681	\$ 4,122,937	\$ 12,650,619
Judy Sturgis Hill	academic	\$ 5,057,995	\$ 2,186,677	\$ 7,244,672
Halle Library	academic	\$ 3,773,898	\$ 3,224,381	\$ 6,998,279
Ford	academic	\$ 4,379,514	\$ 1,663,905	\$ 6,043,419
Porter	academic	\$ 4,229,310	\$ 755,764	\$ 4,985,074
Sherzer	academic	\$ 4,013,674	\$ 195,272	\$ 4,208,946
Pray Harrold	academic	\$ 3,292,354	\$ 846,960	\$ 4,139,314
Kresge Center	academic	\$ 909,554	\$ 1,232,105	\$ 2,141,659
Briggs	academic	\$ 1,457,562	\$ 587,377	\$ 2,044,939
Paint Research	academic	\$ 1,619,861	\$ 283,495	\$ 1,903,356
Mark Jefferson	academic	\$ -	\$ 1,458,885	\$ 1,458,885
Marshall	academic	\$ 1,101,309	\$ 250,145	\$ 1,351,454
Terrestrial and Aquatic Center	academic	\$ 932,706	\$ 342,427	\$ 1,275,133
Parsons Center	academic	\$ 692,662	\$ 277,065	\$ 969,727
Honors College	academic	\$ 66,747	\$ 502,433	\$ 569,181
Sill	academic	\$ 220,000	\$ 225,000	\$ 445,000
Rackham	academic	\$ 275,939	\$ -	\$ 275,939
One Room Schoolhouse	academic	\$ 69,417	\$ 112,085	\$ 181,502
Strong	academic	\$ 150,000	\$ -	\$ 150,000
Sculpture Studio	academic	\$ -	\$ -	\$ -
Campus	non-academic	\$ 61,124,671	\$ 5,012,605	\$ 66,137,276
Goddard	non-academic	\$ 30,028,346	\$ 1,134,707	\$ 31,163,053
Jones	non-academic	\$ 27,837,695	\$ 1,259,543	\$ 29,097,237
McKenny	non-academic	\$ 14,041,883	\$ 2,184,868	\$ 16,226,751
King	non-academic	\$ 11,605,488	\$ 1,095,995	\$ 12,701,484
Pierce	non-academic	\$ 8,725,298	\$ 3,658,657	\$ 12,383,955
Welch	non-academic	\$ 4,351,180	\$ 5,349,994	\$ 9,701,174
Heating Plant	non-academic	\$ 2,427,730	\$ 4,966,682	\$ 7,394,413
Pease	non-academic	\$ 4,630,659	\$ 1,057,280	\$ 5,687,939
Starkweather	non-academic	\$ 3,598,957	\$ 1,902,303	\$ 5,501,260
University House	non-academic	\$ 2,355,559	\$ 1,117,231	\$ 3,472,791
Boone	non-academic	\$ 1,236,084	\$ 1,628,749	\$ 2,864,833
Physical Plant	non-academic	\$ 709,518	\$ 542,371	\$ 1,251,889
Hover	non-academic	\$ 220,267	\$ 486,604	\$ 706,870
Central Operations	non-academic	\$ 263,212	\$ 439,150	\$ 702,362
Central Stores	non-academic	\$ 427,246	\$ 73,422	\$ 500,668
800 Lowell	non-academic	\$ 212,961	\$ -	\$ 212,961
emu House	non-academic	\$ 154,149	\$ -	\$ 154,149
Wellness Center	non-academic	\$ -	\$ -	\$ -
Total Campus Deficiencies		\$ 261,233,975	\$ 59,074,627	\$ 320,308,602

Total System Deficiencies by Building Age

Table 6

Building Name	Primary Use	Building Sq. Ft.	Date Built/ Number	2021 Building Replacement Value	Anticipated 2021 Backlog Deficiency	Facility Condition Index
<u>Before 1900</u>						
Starkweather	non-academic	8,706	1896	\$ 4,224,317	\$ 5,501,260	1.30
Welch	non-academic	36,840	1896	17,875,471	9,701,174	0.54
Total		45,546		\$ 22,099,789	\$ 15,202,433	
<u>1900-1949</u>						
Briggs	academic	9,500	1937	4,609,581	2,044,939	0.44
Ford	academic	33,333	1929	\$ 16,173,808	\$ 6,043,419	0.37
Roosevelt	academic	75,639	1924	36,701,487	12,650,619	0.34
Sherzer	academic	35,253	1903	17,105,429	4,208,946	0.25
One Room Schoolhouse	academic	900	1905	1,216,938	181,502	0.15
Rackham	academic	45,890	1938	22,266,704	275,939	0.01
Jones	non-academic	70,491	1948	31,384,609	29,097,237	0.93
emu House	non-academic	1,434	1925	327,629	154,149	0.47
Pierce	non-academic	61,275	1948	29,731,800	12,383,955	0.42
Pease	non-academic	30,181	1914	14,644,397	5,687,939	0.39
King	non-academic	61,450	1939	33,106,738	12,701,484	0.38
McKenny	non-academic	107,103	1931	51,968,421	16,226,751	0.31
Boone	non-academic	45,210	1914	21,936,755	2,864,833	0.13
Hover	non-academic	11,021	1941	7,462,965	706,870	0.09
Total		588,680		\$ 288,637,261	\$ 105,228,582	
<u>1950-1969</u>						
Warner	academic	95,349	1964	\$ 46,265,155	\$ 25,214,536	0.55
Honors college	academic	21,405	1965	1,447,664	569,181	0.39
Judy Sturgis Hill	academic	58,205	1959	28,242,177	7,244,672	0.26
Porter	academic	143,775	1966	69,762,375	4,985,074	0.07
Pray Harrold	academic	237,108	1967	115,049,329	4,139,314	0.04
Mark Jefferson	academic	262,273	1969	183,695,957	1,458,885	0.01
Sill	academic	107,335	1965	62,356,240	445,000	0.01
Strong	academic	80,713	1957	39,163,489	150,000	0.00
Sculpture Studio	academic	4,648	1959	2,255,298	-	-
Goddard	non-academic	75,856	1955	33,773,260	31,163,053	0.92
Central Operations	non-academic	5,665	1969	2,156,258	702,362	0.33
Heating Plant	non-academic	23,856	1951	80,673,629	7,394,413	0.09
800 Lowell	non-academic	168,000	1901	49,900,200	212,961	0.00
Total		1,284,188		\$ 714,741,032	\$ 83,679,449	
<u>1970-1979</u>						
Kresge Center	academic	12,606	1974	\$ 6,116,672	\$ 2,141,659	0.35
Central Stores	non-academic	10,140	1972	4,920,122	500,668	0.10
Total		22,746		\$ 11,036,793	\$ 2,642,328	
<u>1980-1989</u>						
Paint Research	academic	8,000	1987	5,419,075	1,903,356	0.35
Alexander	academic	86,900	1980	\$ 42,165,539	\$ 14,504,056	0.34
Total		94,900		\$ 47,584,615	\$ 16,407,412	
<u>1990-1999</u>						
Terrestrial and Aquatic Center	academic	5,200	1998	\$ 2,523,139	\$ 1,275,133	0.51
Owen (COB)	academic	126,000	1990	73,941,819	15,691,849	0.21
Halle Library	academic	273,715	1998	132,811,744	6,998,279	0.05
Physical Plant	non-academic	25,300	1995	12,276,043	1,251,889	0.10
Total		430,215		\$ 221,552,746	\$ 25,217,150	
<u>Post 2000</u>						
Parsons Center	academic	9,948	2007	\$ 5,046,484	\$ 969,727	0.19
Marshall	academic	70,324	2000	34,122,548	1,351,454	0.04
University House	non-academic	10,700	2003	6,225,459	3,472,791	0.56
Wellness Center	non-academic	15,548	2019	8,692,750	-	-
Total		106,520		\$ 54,087,241	\$ 5,793,972	
<u>Sitework, Drains, & Infrastructure</u>						
Campus	non-academic	n/a	n/a	█ #N/A	\$ 66,137,276	█ #N/A
Total		n/a		█ #N/A	\$ 66,137,276	
Total Building Deficiencies		2,572,795		\$ 1,359,739,477	\$ 320,308,602	

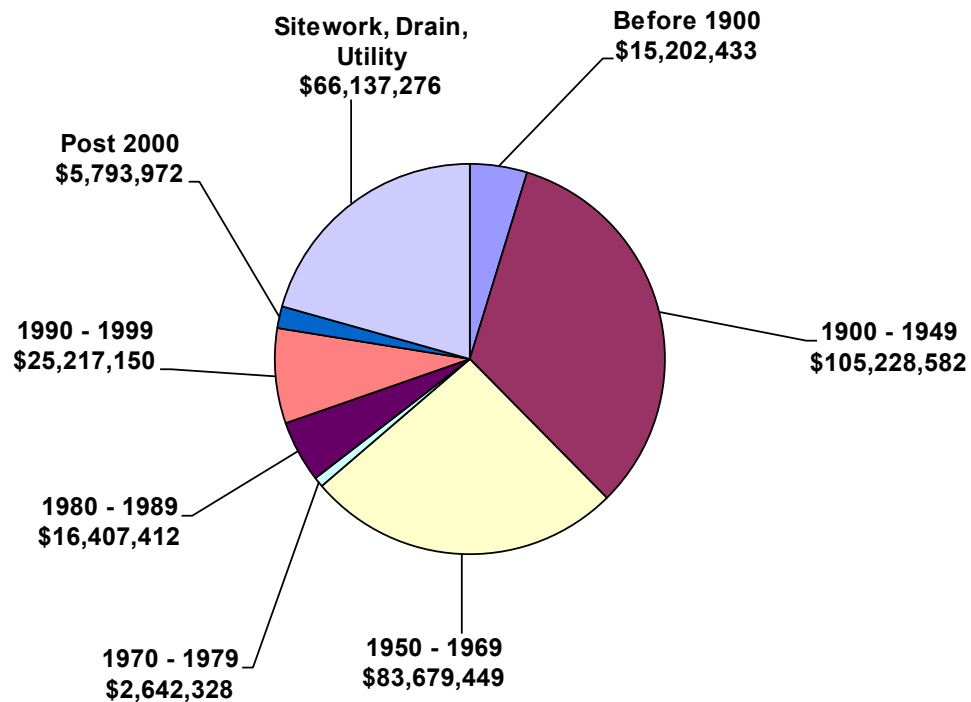
Building System Deficiencies by Age
Table 7
General Fund Building Profile Data

Total number of General Fund Facilities	41
Current Replacement Value	\$ 1,359,739,477
Total Gross Sq. ft.	2,572,795
Total Cost of General Fund Building Deficiencies (to date)	\$ 320,308,602

General Fund Building Age Summary

Date Built	No. of Facilities	Gross Sq. Ft.	Cost of Deficiencies
Before 1900	2	45,546	15,202,433
1900 - 1949	14	588,680	105,228,582
1950 - 1969	13	1,284,188	83,679,449
1970 - 1979	2	22,746	2,642,328
1980 - 1989	2	94,900	16,407,412
1990 - 1999	4	430,215	25,217,150
Post 2000	4	106,520	5,793,972
Sitework, Drain, Utility	0	n/a	66,137,276

Cost of Deficiencies by Date Built



General Fund Facility Condition Index

Table 8

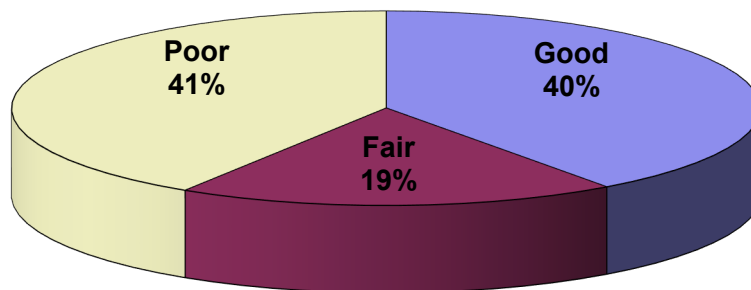
General Fund Facility Condition Index

Facility Condition Index =	<u>Backlog Deficiency</u> Current Replacement Value	=	<u>\$320,308,602</u> \$1,359,739,477
Facility Condition Index (All Facilities) 0.24			

General Fund Facility Condition Index Summary

	Facility Condition Index		
	Good (Under .05)	Fair (.05 - .10)	Poor (Over .10)
Number of Facilities	10	6	25
Gross Square ft.	1,037,049	487,807	1,047,939
Percentage of Campus Gross Sq. ft.	40%	19%	41%

Campus Condition Based On Gross Sq. Ft.



Facility Condition Index (FCI) by Building
Table 9

Building Name	Primary Use	Building Sq. Ft.	Year Built	2021 Building Replacement Value	Building Deficiencies (All Systems)	Facility Condition Index
Poor (Over .10)						
Warner	academic	95,349	1964	\$ 46,265,155	\$ 25,214,536	0.55
Terrestrial and Aquatic Center	academic	5,200	1998	2,523,139	1,275,133	0.51
Briggs	academic	9,500	1937	4,609,581	2,044,939	0.44
Honors College	academic	21,405	1965	1,447,664	569,181	0.39
Ford	academic	33,333	1929	16,173,808	6,043,419	0.37
Paint Research	academic	8,000	1987	5,419,075	1,903,356	0.35
Kresge Center	academic	12,606	1974	6,116,672	2,141,659	0.35
Roosevelt	academic	75,639	1924	36,701,487	12,650,619	0.34
Alexander	academic	86,900	1980	42,165,539	14,504,056	0.34
Judy Sturgis Hill	academic	58,205	1959	28,242,177	7,244,672	0.26
Sherzer	academic	35,253	1903	17,105,429	4,208,946	0.25
Owen (COB)	academic	126,000	1990	73,941,819	15,691,849	0.21
Parsons Center	academic	9,948	2007	5,046,484	969,727	0.19
One Room Schoolhouse	academic	900	1905	1,216,938	181,502	0.15
Starkweather	non-academic	8,706	1896	4,224,317	5,501,260	1.30
Jones	non-academic	70,491	1948	31,384,609	29,097,237	0.93
Goddard	non-academic	75,856	1955	33,773,260	31,163,053	0.92
University House	non-academic	10,700	2003	6,225,459	3,472,791	0.56
Welch	non-academic	36,840	1896	17,875,471	9,701,174	0.54
emu House	non-academic	1,434	1925	327,629	154,149	0.47
Pierce	non-academic	61,275	1948	29,731,800	12,383,955	0.42
Pease	non-academic	30,181	1914	14,644,397	5,687,939	0.39
King	non-academic	61,450	1939	33,106,738	12,701,484	0.38
Central Operations	non-academic	5,665	1969	2,156,258	702,362	0.33
McKenny	non-academic	107,103	1931	51,968,421	16,226,751	0.31
Total		1,047,939		\$ 512,393,329	\$ 221,435,748	
Fair (.05 -.10)						
Porter	academic	143,775	1966	\$ 69,762,375	\$ 4,985,074	0.07
Halle Library	academic	273,715	1998	\$ 132,811,744	\$ 6,998,279	0.05
Physical Plant	non-academic	25,300	1995	12,276,043	1,251,889	0.10
Central Stores	non-academic	10,140	1972	4,920,122	500,668	0.10
Heating Plant	non-academic	23,856	1951	80,673,629	7,394,413	0.09
Hover	non-academic	11,021	1941	7,462,965	706,870	0.09
Total		487,807		\$ 307,906,877	\$ 21,837,193	
Good (Under .05)						
Marshall	academic	70,324	2000	34,122,548	1,351,454	0.04
Pray Harrold	academic	237,108	1967	115,049,329	4,139,314	0.04
Sill	academic	107,335	1965	62,356,240	445,000	0.01
Rackham	academic	45,890	1938	22,266,704	275,939	0.01
Mark Jefferson	academic	262,273	1969	183,695,957	1,458,885	0.01
Strong	academic	80,713	1957	39,163,489	150,000	0.00
Sculpture Studio	academic	4,648	1959	2,255,298	-	0.00
Boone	non-academic	45,210	1914	21,936,755	2,864,833	0.13
800 Lowell	non-academic	168,000	1901	49,900,200	212,961	0.00
Wellness Center	non-academic	15,548	2019	8,692,750	-	0.00
Total		1,037,049		\$ 539,439,270	\$ 10,898,385	
Sitework, Drains, Utilities I/F						
Campus	non-academic	n/a	n/a	n/a	\$ 66,137,276	#N/A
Total		n/a		n/a	\$ 66,137,276	
Total Building Deficiencies		2,572,795		1,359,739,477	320,308,602	0.24

ARCHITECTURAL SYSTEMS

Overview

Architectural systems are primary building systems and components such as foundations, substructure, superstructure and building envelope. Secondary “exterior” systems include roofing, siding, glass, glazing, windows, exterior doors, flashings, painting and caulking. Secondary “interior” systems include interior partitions, doors, walls, wall finishes, floors, floor finishes, ceilings and ceiling finishes. Maintaining integrity in the primary systems is fundamental to long-term preservation of a building. Architectural systems not only protect the more sensitive mechanical and electrical systems but also reflect on the image of the owner and the quality of the activities and programs performed within the building.

System Condition and Adequacy

The average age of the general fund buildings architectural systems is 30 years. The oldest systems date back to 1896 and include Starkweather and Welch Halls. Both buildings, however, have been restored several times since their construction. Most campus buildings more than 20 years old have had major roofing repairs and/or new roofing at least once. All, but the newest buildings have some building envelope deficiencies. Repairs that have been made to deficiencies in buildings renovated or newly constructed since 2000 have been limited primarily to interior walls, doors, floors and finishes.

Since 2010, the University has spent over \$75 million preserving and renewing the architectural assets of campus facilities. EMU’s future investments in the architectural systems of campus buildings are detailed in the 2024-2028 Asset Preservation listing within the Implementation Plan later in this document.

Improvements Completed

Recent Architectural System improvements on campus include, but are not limited to the following:

Rackham Hall Lower Level and Façade	Completed August 2015
Sculpture Studio Renovation	Completed August 2015
Rynearson Stadium concrete repairs	Completed August 2015
Wise Hall Renovation Phases I-III	Completed August 2016
Fletcher ACC Program Enhancements	Completed November 2016
Wise Hall Renovation Phase IV	Completed August 2017
Judy Sturgis Hill Building Lobby Renovations	Completed August 2017
Roosevelt Auditorium Renovation	Completed August 2017
Briggs Hall Re-Roof	Completed July 2018
Rynearson Stadium concrete repairs	Completed August 2018
Electrical Loop 1 Replacement	Completed August 2018
Judy Sturgis Hill Building Foundations and Drainage	Completed August 2018

Elevator Controls Replacement	Completed September 2018
Pierce Hall Bell Tower Repairs	Completed October 2018
King Hall Re-Roof	Completed July 2019
Judy Sturgis Hill Building Windows and Exterior Panels	Completed January 2019
COB Flooring Replacement	Completed Summer 2019
Welch Hall Window Replacement – Phase I	Completed October 2019
EMU Campus Wellness Center	Completed October 2019
Warner Re-Roof	Completed July 2020
ReclIM Renovations	Completed October 2020
Sill Hall Renovation and Addition	Completed November 2020
Bowen Re-Roof	Completed July 2021
Starkweather Hall Steam and Condensate	Completed July 2021
Welch Hall Entry Porch Replacement	Completed September 2021
Energy Center Systems Improvements	Completed September 2021

The University has completed a number of ADA Improvements as follows:

Ford ADA Ramp	Completed August 2010
Pray-Harrold Chair Lifts	Completed October 2011
Porter Bathroom Renovation	Completed November 2011
Oestrike Stadium ADA Accessibility	Completed July 2013
Bowman-Roosevelt Lot ADA Renovations	Completed July 2014
CD-1 Restrooms	Completed April 2015
Rynearson Stadium Home Restrooms	Completed August 2015
Ford Parking Lot Pedestrian Walkways	Completed August 2016
Green Lot II Pedestrian Walkways	Completed August 2016
East Circle Drive and Sidewalks	Completed August 2017
Green Lot I Parking and Pedestrian Walkways	Completed October 2018
Mark Jefferson Lot Pedestrian Walkways	Completed July 2019
New Health Center Pedestrian Walkways	Completed September 2019
Power Assist Doors Various Buildings	Continuous and Ongoing
Sidewalk and ADA curb cut repairs	Continuous and Ongoing

Architectural System Deficiencies by Building
Table 10

Building Name	Primary Use	Building Sq. Ft.	Year Built	2021 Building Replacement Value	Architectural System Deficiencies
Welch	non-academic	36,840	1896	\$ 17,875,471	\$ 3,640,050
Starkweather	non-academic	8,706	1896	4,224,317	2,816,677
Total Before 1900		45,546		\$ 22,099,789	\$ 6,456,727
Roosevelt	academic	75,639	1924	\$ 36,701,487	\$ 5,447,297
Sherzer	academic	35,253	1903	17,105,429	2,974,666
Ford	academic	33,333	1929	16,173,808	1,881,824
Briggs	academic	9,500	1937	4,609,581	837,240
Rackham	academic	45,890	1938	22,266,704	275,939
One Room Schoolhouse	academic	900	1905	1,216,938	112,085
Jones	non-academic	70,491	1948	31,384,609	8,086,388
King	non-academic	61,450	1939	33,106,738	3,374,651
Pease	non-academic	30,181	1914	14,644,397	2,392,456
Pierce	non-academic	61,275	1948	29,731,800	1,603,890
Mckenny	non-academic	107,103	1931	51,968,421	1,419,577
Boone	non-academic	45,210	1914	21,936,755	1,208,062
Hover	non-academic	11,021	1941	7,462,965	188,971
emu House	non-academic	1,434	1925	327,629	100,751
800 Lowell	non-academic	168,000	1901	49,900,200	-
Total 1900-1949		756,680		\$ 338,537,461	\$ 29,903,795
Warner	academic	95,349	1964	\$ 46,265,155	\$ 10,650,297
Judy Sturgis Hill	academic	58,205	1959	28,242,177	2,399,418
Porter	academic	143,775	1966	69,762,375	864,568
Pray Harrold	academic	237,108	1967	115,049,329	500,479
Honors College	academic	21,405	1965	1,447,664	318,938
Mark Jefferson	academic	262,273	1969	183,695,957	280,212
Sill	academic	107,335	1965	62,356,240	220,000
Strong	academic	80,713	1957	39,163,489	-
Sculpture Studio	academic	4,648	1959	2,255,298	-
Goddard	non-academic	75,856	1955	33,773,260	9,317,945
Heating Plant	non-academic	23,856	1951	80,673,629	1,903,209
Central Operations	non-academic	5,665	1969	2,156,258	129,717
Total 1950-1969		1,116,188		\$ 664,840,832	\$ 26,584,783
Kresge Center	academic	12,606	1974	\$ 6,116,672	\$ 823,638
Central Stores	non-academic	10,140	1972	4,920,122	427,246
Total 1970-1979		22,746		\$ 11,036,793	\$ 1,250,885
Alexander	academic	86,900	1980	\$ 42,165,539	\$ 9,244,195
Paint Research	academic	8,000	1987	5,419,075	533,260
Total 1980-1989		94,900		\$ 47,584,615	\$ 9,777,456
Owen (COB)	academic	126,000	1990	\$ 73,941,819	\$ 5,430,598
Halle Library	academic	273,715	1998	132,811,744	2,234,465
Terrestrial and Aquatic Cent	academic	5,200	1998	2,523,139	345,878
Physical Plant	non-academic	25,300	1995	12,276,043	311,697
Total 1990-1999		430,215		\$ 221,552,746	\$ 8,322,638
Parsons Center	academic	9,948	2007	\$ 5,046,484	\$ 906,758
Marshall	academic	70,324	2000	34,122,548	647,450
University House	non-academic	10,700	2003	6,225,459	1,252,144
Wellness Center	non-academic	15,548	2019	8,692,750	-
Total Post 2000		106,520		\$ 54,087,241	\$ 2,806,352
Sitework, Drains, & Infrastructure					
Campus	non-academic	n/a	n/a	n/a	\$ 8,995,920
work, Drains & Infrastructure		n/a		n/a	\$ 8,995,920
Total Building Deficiencies		2,572,795		\$ 1,359,739,477	\$ 94,098,556

MECHANICAL SYSTEMS

Overview

Mechanical systems and sub-systems are vital, diverse and complex building systems. Preventative and predictive maintenance programs have been developed and implemented to preserve these critical systems and provide a quality learning environment. Failure in any one of the multiple sub-systems can create reactive deficiencies in other sub-systems and seriously detract from the quality of the learning environment and lead to premature depletion of a building.

Mechanical sub-systems include:

Heating, Ventilation, Air Conditioning and Refrigeration (HVACR)
Storm and Sanitary Drain Systems
Chilled Water Systems
Domestic Water Supply Systems

Heating Ventilating and Air Conditioning Sub-System

Overview

Heating Ventilation and Air Conditioning (HVAC) systems encompass a broad, complex, intertwined array of equipment and components including exhaust fans, laboratory fume hoods, air handling units, steam absorbers, electric chillers, rooftop units, base board heat, heating coils, cooling coils, heat exchangers, duct work, fire dampers, direct expansion chillers, radiant ceiling panels, pneumatic controls, electro-mechanical controls, direct digital controls, programmable controllers, thermostats, transducers, and others too numerous to mention. The HVAC systems operate in concert with the building envelope, interior floor plan, and the space utilization program to maintain a comfortable environment for the end user (students, faculty, and staff) of the various areas of the building. Alterations or failures of any one of these systems and/or components can adversely impact occupant comfort and potentially shorten the useful life of the building.

System Condition and Adequacy

A partial deferred maintenance list showing major components of HVAC systems for the state buildings on campus has been compiled. Based on useful service life expectancy, the total deferred maintenance cost for the HVAC systems for these buildings is over \$67 million. Normal life expectancy of various HVAC system components ranges from 10 to 30 years. Currently there are six (6) buildings that have been renovated or newly constructed within the last 10 years that have HVAC systems in good working condition. Some components of these systems are approaching the end of their useful life and will begin to require maintenance, repair, upgrades, or replacement to maintain system functionality. All of these systems must have ongoing preventative maintenance programs to avoid costly repairs, premature deterioration and untimely system failure.

The remaining buildings have equipment which has exceeded or is nearing the end of its useful life. These buildings are being kept in service through extraordinary efforts, but are beginning to compromise the quality of the learning environment. EMU's future investments in the mechanical systems of campus buildings are detailed in the 2024-2028 Asset Preservation Listing within the Implementation Plan later in this document.

Storm Drain Sub-Systems

Overview

The University storm drain system consists of 15,500 feet of storm sewer that drains rain water from 480 acres. This system catches all the surface water from roofs, parking lots, and streets on campus. The campus storm system is tied at various points to the City and County systems that eventually drain into the Huron River. City and County systems include a 24-inch main running down Cross Street, which borders the main campus to the south and the 66-inch Owen Drain that runs through the center of campus and collects water from, and intersects with, the 24-inch main, as well as other lines on the northern perimeter.

System Condition and Adequacy

In recent years the University has been experiencing storm water backup into some of its buildings during heavy rains. In July 2021, a 50-year equivalent rain storm flooded numerous buildings causing substantial damage to building systems and finishes. Initial observations indicate that some building roof drains and perimeter footing drains are backing up because the main lines into which they drain are at capacity. The University is concerned that the storm drainage system has reached or exceeded the design capacity; and that the City and County lines have also become overloaded and exceed their design capacity. Consequently, water pressure builds and forces drains to discharge water rather than accept it and carry it away.

The following engineering studies have been performed on selected portions of campus:

- Map the existing system to include GPS location of manholes
- Review the capacity of the existing storm system
- Determine the elevations of the inverts and building basements
- Calculate the required system capacity
- Compare inlet and outlet capacities at each manhole

Dialogue continues regarding a plan of action and the associated costs for the recommendations of these studies.

Chilled Water Sub-Systems

Overview

The University Chilled Water system is a major component of the HVAC system and is used to provide air conditioning for a large portion of campus. The system is composed of six (6) main loops utilizing six (6) steam absorption units totaling 2,973 tons and ten (10) electric chillers totaling 4,429 tons. Buildings are connected to the loops via chilled water supply and return piping running through the steam tunnels or buried underground. Most University pumping systems include a backup condenser water pump and a backup chilled water pump. Cooling is typically needed from mid-April through the end of October. Halle Library and Mark Jefferson require year-round cooling.

Chilled Water System maintenance requires chiller tube bundles be serviced each winter to keep heat transfer surfaces clean; cooling tower water and chilled water require a constant, active water treatment program to control biological growth and prevent scaling and corrosion; steam absorbers require overhauls at three year intervals to maintain proper operation; and testing is performed every five years on both electric and absorption units to verify the integrity of the internal tubes.

System Condition and Adequacy

The campus chilled water loop system lacks redundancy. Many of the components are approaching the end of their useful lives creating the potential for disruption of service. In particular, cooling towers are requiring more costly repairs due to their age and conditions. Because the components are so inter-dependent, any single equipment failure could take a loop out of service causing the loss of one or more buildings.

Loop 1 is the Pierce Loop and serves eight (8) buildings. Loop 1 cooling includes three (3), 250-ton steam absorption units with three cooling towers and a 250-ton air-cooled electric chiller located at Pierce Hall. All units appear to be in good condition. The distribution piping for Loop 1 has experienced several failures and will require repair to other sections which are in poor condition.

Loop 2 is the Mark Jefferson Loop. It consists of one (1) 781-ton steam absorber and one (1) 1,000-ton electric chiller both located at Mark Jefferson and one (1) 852-ton steam absorber located at Halle Library. The 300 ton electric chiller at McKenny is no longer functional due to system age and obsolescence and is being evaluated for either repair or replacement. This loop serves seven (7) buildings. A large portion of this system was refurbished as part of the Mark Jefferson Project; however, significant portions of the distribution piping remain in poor condition. Additional load was added to this loop as part of the Rackham renovation in 2012 and more recently the Strong Hall renovation.

Loop 3 serves eight (8) buildings. Chillers included in this loop are located in Pray-Harrold, Alexander, and Porter College of Education Building. Porter C.O.E. has one (1), 590-ton steam

absorber in poor condition and one (1), 600-ton electric chiller in good condition. Pray Harrold has one (1), 500-ton electric chiller which was installed as part of the building renovation. Alexander has one (1), 255-ton electric chiller which is in good condition. The absorber at Porter C.O.E. has exceeded its useful life and is in poor condition. The cooling towers for the units at Porter C.O.E. and Alexander are in poor condition.

Loop 4 is the College of Business Loop and serves one building. The Original 320-ton chiller which was in poor condition and utilized R-11 refrigerant has been replaced with a new chiller using a more environmentally friendly refrigerant. The old cooling tower which was also in poor condition has been replaced.

Loop 5 is the Convocation Center Loop and serves one building. It contains two (2), 380-ton electric chillers which are in good condition. Ice storage units have been added to this loop in 2019 to provide operational savings by allowing chiller units to run at off-peak hours.

Loop 6 is the Student Center Loop. It contains two (2), 372- ton centrifugal chillers utilizing R 134-a. These units are in good condition.

**Chilled Water Loop
Equipment Data Sheet
Table 11**

		CHILLER MODEL & SERIAL NUMBERS		Chiller Type				Cooling Tower		
		Model Number	Serial Number	Electrical (Tonnage)	(Year)	Absorption (Tonnage)	(Year)	(Tonnage)	(Type)	(Year)
Loop 1	Pierce	ABSC022ALP01AAAF	L99M04867M-TRANE			250	1999	250	Marley	1999
		ABSC022A0101AAADA	L95C03092-TRANE			250	1994	250	Marley	1994
		ABSC022A0101AAADA	L95C03091-TRANE			250	1994	250	Marley	1994
		RTUD 250A 2B02 A1D1	U11J01576-TRANE	250	2011					
			Loop 1 Total	250		750		750		
Loop 2	Halle-Library	ABTE093FLD01AAABAB	L96K07725-TRANE			852	1998	1,000	BAC	1997
	Mark Jefferson	ABSC085FLP01AAA	L98H05010-TRANE			781	1998	1,600	Marley	1967
		New with MJ Project	York	1,000	2009					
			Loop 2 Total	1,000		1,633		2,600		
Loop 3	John C. Porter	CVHF064FAIB03UT	L98L06781-TRANE	600	1998			499	Marley	1998
		ABSC05J0LGIFI	L92E13549-TRANE			590	1992	400	Marley	1992
								400	Marley	1992
								400	Marley	1992
	Pray-Harold	CVHR049GA4A0PCP2	L10M07001-TRANE	500	2011			860	Marley	2000
	Alexander	RTHB255FLC00EN	U95C06249-TRANE	255	1994			250	Marley	1994
								250	Marley	1994
Loop 4			Loop 3 Total	1,355		590		3,059		
	College of Business	CVHS300	L16M03965	320	2016			300	Evapco	2016
Loop 5			Loop 4 Total	320		0		300		
	Convocation Center	RTHB380FLF00	U97K05886-TRANE	380	1997			400	Marley	1997
		RTHB380FMF00	U97K05887-TRANE	380	1997			400	Marley	1997
			Loop 5 Total	760		0		800		
Loop 6	New Student Center	E2612BE2-A	WA5310045	372	2006			375	Evapco	2006
		E2612BE2-A	WA5310046	372	2006			375	Evapco	2006
			Loop 6 Total	744		0		750		
			Combined loop totals	4,429		2,973		8,259		

Domestic Water Supply Sub-Systems

Overview

The University water distribution system consists of approximately 13,700 feet of supply line (pipe), most of which is buried.

System Condition and Adequacy

The distribution lines on campus are of various ages and are in various conditions from poor to good

It should be noted that several of the water mains have had “temporary” repairs made on them; as such, the risk of failures increases with time. The future plan is to phase the replacement of these line sections and valves to minimize the impact on connected buildings. A major replacement of a main supply line at the newly renovated Sill Hall is planned for Spring/Summer of 2022. A 5-year plan for other line replacements is being developed.

Mechanical System Deficiencies by Building
Table 12

Building Name	Primary Use	Building Sq. Ft.	Year Built	2021 Building Replacement Value	Mechanical System Deficiencies
Welch	non-academic	36,840	1896	\$ 17,875,471	\$ 2,545,926
Starkweather	non-academic	8,706	1896	4,224,317	1,715,410
Total Before 1900		45,546		\$ 22,099,789	\$ 4,261,336
Roosevelt	academic	75,639	1924	\$ 36,701,487	\$ 4,015,856
Ford	academic	33,333	1929	16,173,808	2,359,414
Briggs	academic	9,500	1937	4,609,581	918,015
Sherzer	academic	35,253	1903	17,105,429	195,272
Rackham	academic	45,890	1938	22,266,704	-
One Room Schoolhouse	academic	900	1905	1,216,938	-
Jones	non-academic	70,491	1948	31,384,609	10,003,909
McKenny	non-academic	107,103	1931	51,968,421	9,471,826
Pierce	non-academic	61,275	1948	29,731,800	6,522,349
King	non-academic	61,450	1939	33,106,738	4,569,682
Pease	non-academic	30,181	1914	14,644,397	823,664
Boone	non-academic	45,210	1914	21,936,755	225,000
Hover	non-academic	11,021	1941	7,462,965	172,512
800 Lowell	non-academic	168,000	1901	49,900,200	-
emu House	non-academic	1,434	1925	327,629	-
Total 1900-1949		756,680		\$ 338,537,461	\$ 39,277,499
Warner	academic	95,349	1964	\$ 46,265,155	\$ 9,349,476
Porter	academic	143,775	1966	69,762,375	3,352,647
Pray Harrold	academic	237,108	1967	115,049,329	3,072,087
Judy Sturgis Hill	academic	58,205	1959	28,242,177	2,830,339
Mark Jefferson	academic	262,273	1969	183,695,957	249,668
Sill	academic	107,335	1965	62,356,240	225,000
Honors College	academic	21,405	1965	1,447,664	50,000
Strong	academic	80,713	1957	39,163,489	-
Sculpture Studio	academic	4,648	1959	2,255,298	-
Goddard	non-academic	75,856	1955	33,773,260	10,455,322
Heating Plant	non-academic	23,856	1951	80,673,629	4,018,468
Central Operations	non-academic	5,665	1969	2,156,258	316,990
Total 1950-1969		1,116,188		\$ 664,840,832	\$ 33,919,996
Kresge Center	academic	12,606	1974	\$ 6,116,672	\$ 728,301
Central Stores	non-academic	10,140	1972	4,920,122	-
Total 1970-1979		22,746		\$ 11,036,793	\$ 728,301
Alexander	academic	86,900	1980	\$ 42,165,539	\$ 4,551,609
Paint Research	academic	8,000	1987	5,419,075	1,017,596
Total 1980-1989		94,900		\$ 47,584,615	\$ 5,569,205
Owen (COB)	academic	126,000	1990	\$ 73,941,819	\$ 7,348,895
Halle Library	academic	273,715	1998	132,811,744	3,073,162
Terrestrial and Aquatic Center	academic	5,200	1998	2,523,139	741,027
Physical Plant	non-academic	25,300	1995	12,276,043	678,033
Total 1990-1999		430,215		\$ 221,552,746	\$ 11,841,118
Marshall	academic	70,324	2000	\$ 34,122,548	\$ -
Parsons Center	academic	9,948	2007	5,046,484	-
University House	non-academic	10,700	2003	6,225,459	349,635
Wellness Center	non-academic	15,548	2019	8,692,750	-
Total Post 2000		106,520		\$ 54,087,241	\$ 349,635
<u>Sitework, Drains, & Infrastructure</u>					
Campus	non-academic	n/a	n/a	n/a	\$ 14,961,304
Total Sitework, Drains & Infrastructure		n/a		n/a	\$ 14,961,304
Total Building Deficiencies		2,572,795		\$ 1,359,739,477	\$ 110,908,394

Steam Supply and Distribution System

Steam Supply

Overview

The EMU Energy Center supplies steam to campus for all of its heating requirements and that portion of the cooling requirements not supplied with electric chillers. The Energy Center has completed a major upgrade replacing the 1951 Wilkes conventional fired boiler and the 1987 cogeneration system with a new cogeneration system capable of producing up to 7.8 Megawatts of power and 88,000 pounds per hour of steam at 120 psig. The two (2) 1967 Erie City conventional forced draft boilers rated at 100,000 pounders/hour each still remain.

The conventional boilers are capable of burning Natural Gas, No. 6, and No. 2 fuel oil. Presently No. 2 fuel oil is used as a backup in the event of a natural gas interruption which could result in millions of dollars of damage from frozen water lines and heating coils. In addition to physical damage to University assets, without heat normal business operations and classes would have to be canceled, and residents would not be able to stay in the residence halls. EMU affords significant benefits by having an alternative fuel capability available in the event of primary fuel supply loss. Eastern Michigan University's exposure and risks are greatly reduced by the oil tank farm.

System Condition and Adequacy

The two (2) Erie City boilers are 52 years old but serviceable. Experience has shown that at production rates above 85,000 lbs./hours they shake and vibrate to the point that operating staff are using that as the upper limit for each unit. If operated at higher rates it is expected that service problems would rise exponentially and the life expectancy of these units would be seriously impacted. Smoke stacks on both units are experiencing deterioration and will require replacement before the boilers need to be replaced.

Auxiliary systems within the plant which are required during steam production are old, but serviceable; or are being replaced on an as needed basis.

Steam Distribution Sub-Systems

Overview

The steam distribution system is a major component of the campus mechanical systems supplying the energy needed to heat the majority of the main campus building from the Energy Center. The steam distribution piping runs from the Energy Center through two tunnel systems: 1) the North loop running from the Energy Center eastward to Alexander Music Building serves most of the buildings on the North half of campus and is approximately 5,000 feet in length including a six inch spur line serving the Student Center, and 2) the South loop

which is approximately 4,600 feet in length and runs from the Energy Center southeast toward Sherzer then branching off in two directions to Pease and Goddard Hall.

The steam lines transport the steam at 40 pounds per square inch (psi) and vary in diameter from fourteen inches at the Energy Center to six inches at the far extremity between Goddard and Alexander. While the North and South tunnels are not connected, the steam lines are joined between Goddard and Alexander by this six-inch line. Additionally, an eight inch steam line provides 120 psi steam to the two-stage steam absorber at Halle Library via the South tunnel.

System Condition and Adequacy

The North and South tunnels are cast-in-place concrete, which range from poor to good condition depending on the section of tunnel in question. There is water seepage in the tunnel at various expansion joints. Some areas of the tunnel are showing signs of structural distress in the form of varying degrees of reinforcement corrosion and concrete spalling. Drainage, electrical, and ventilation needs to be improved. Pipe support systems are comprised of painted steel frames, located at twelve to fifteen foot intervals. These frames are experiencing varying stages of corrosive deterioration. The electrical service for the steam tunnels is in poor condition. The steam lines in the tunnels, expansion joints, and condensate return lines are in serviceable condition. The asbestos insulation is in serviceable condition but requires frequent maintenance. Several buried steam and condensate lines going from the steam tunnels to specific buildings show signs of failure and are in need of replacement. These include steam/condensate lines serving Snow Health Center, Sill Hall, and Starkweather. A major portion of the main steam supply to CD-1, Wise Hall, Downing Hall, and Best Hall has been replaced; however, spur lines to the individual buildings from the new main may require replacement in the future.

ELECTRICAL SYSTEMS (BUILDINGS)

Overview

The electrical system components within each building include: power transformers, switchgear, power distribution panel main breakers, electric distribution wiring, branch circuit breaker panels, motor control fuse switches and starters, receptacles, and lighting. Like mechanical systems, these systems are vital, complex and intra-dependent. Failure in one component can result in complete system failure.

System Condition and Adequacy

The average age of Electrical Systems in General Fund buildings is 28 years (8 buildings have electrical systems at least 30 years old). As these electrical systems age, replacement parts have become increasingly difficult to obtain. Furthermore, the older systems were not designed to meet contemporary technology demands. In many instances the systems are at maximum capacity limiting the University's ability to support new educational programs. Electric distribution system deficiencies include outdated inefficient lighting systems, an inadequate number of distribution circuits and panels with no spare breakers, or electric capacity. EMU's future investments in the electrical systems of campus buildings are detailed in the 2024-2028 Asset Preservation listing within the Implementation Plan later in this document.

Electrical System Deficiencies by Building
Table 13

Building Name	Primary Use	Building Sq. Ft.	Year Built	2021 Building Replacement Value	Electrical System Deficiencies
Welch	non-academic	36,840	1896	\$ 17,875,471	\$ 578,337
Starkweather	non-academic	8,706	1896	4,224,317	516,625
Total Before 1900		45,546		\$ 22,099,789	\$ 1,094,962
Roosevelt	academic	75,639	1924	\$ 36,701,487	\$ 1,370,478
Ford	academic	33,333	1929	16,173,808	1,134,707
Sherzer	academic	35,253	1903	17,105,429	323,689
Briggs	academic	9,500	1937	4,609,581	-
Rackham	academic	45,890	1938	22,266,704	-
One Room Schoolhouse	academic	900	1905	1,216,938	-
Jones	non-academic	70,491	1948	31,384,609	5,071,338
Pierce	non-academic	61,275	1948	29,731,800	2,079,449
King	non-academic	61,450	1939	33,106,738	2,064,558
Pease	non-academic	30,181	1914	14,644,397	1,661,506
Mckenny	non-academic	107,103	1931	51,968,421	1,653,270
Boone	non-academic	45,210	1914	21,936,755	126,042
emu House	non-academic	1,434	1925	327,629	33,374
800 Lowell	non-academic	168,000	1901	49,900,200	-
Hover	non-academic	11,021	1941	7,462,965	-
Total 1900-1949		756,680		\$ 338,537,461	\$ 15,518,412
Warner	academic	95,349	1964	\$ 46,265,155	\$ 2,458,851
Judy Sturgis Hill	academic	58,205	1959	28,242,177	1,204,601
Mark Jefferson	academic	262,273	1969	183,695,957	855,582
Pray Harrold	academic	237,108	1967	115,049,329	566,747
Porter	academic	143,775	1966	69,762,375	320,267
Strong	academic	80,713	1957	39,163,489	150,000
Honors College	academic	21,405	1965	1,447,664	-
Sill	academic	107,335	1965	62,356,240	-
Sculpture Studio	academic	4,648	1959	2,255,298	-
Goddard	non-academic	75,856	1955	33,773,260	5,546,714
Central Operations	non-academic	5,665	1969	2,156,258	255,655
Heating Plant	non-academic	23,856	1951	80,673,629	225,000
Total 1950-1969		1,116,188		\$ 664,840,832	\$ 11,583,418
Kresge Center	academic	12,606	1974	\$ 6,116,672	\$ 309,708
Central Stores	non-academic	10,140	1972	4,920,122	-
Total 1970-1979		22,746		\$ 11,036,793	\$ 309,708
Alexander	academic	86,900	1980	\$ 42,165,539	\$ 225,000
Paint Research	academic	8,000	1987	5,419,075	66,747
Total 1980-1989		94,900		\$ 47,584,615	\$ 291,747
Halle Library	academic	273,715	1998	\$ 132,811,744	\$ 1,095,365
Owen (COB)	academic	126,000	1990	73,941,819	380,461
Terrestrial and Aquatic Center	academic	5,200	1998	2,523,139	84,102
Physical Plant	non-academic	25,300	1995	12,276,043	206,091
Total 1990-1999		430,215		\$ 221,552,746	\$ 1,766,018
Marshall	academic	70,324	2000	\$ 34,122,548	\$ 263,471
Parsons Center	academic	9,948	2007	5,046,484	62,969
University House	non-academic	10,700	2003	6,225,459	737,249
Wellness Center	non-academic	15,548	2019	8,692,750	-
Total Post 2000		106,520		\$ 54,087,241	\$ 1,063,689
Sitework, Drains, & Infrastructure					
Campus	non-academic	n/a	n/a	n/a	\$ 12,823,066
Total Sitework, Drains & Infrastructure		n/a		n/a	\$ 12,823,066
Total Building Deficiencies		2,572,795		\$ 1,359,739,477	\$ 44,451,020

ELEVATOR SYSTEMS

Overview

The elevator equipment at Eastern Michigan University varies in age and condition. The oldest General Fund building elevator car still in service was installed in 1936. Elevators are a vital component to meet the ADA requirements and provide access to our campus buildings and facilities. There is a total of 41 elevators in General Fund buildings.

System Condition and Adequacy

All 41 elevators in General Fund buildings are maintained by the Physical Plant staff and are continuously evaluated for condition safety. There are six buildings of two or more stories that do not have elevators.

EMU's future investments in the elevator systems of campus buildings are detailed in the 2022-2026 Asset Preservation listing within the Implementation Plan later in this document.

Elevator System Deficiencies by Building
Table 14

Building Name	Primary Use	Building Sq. Ft.	Year Built	2021 Building Replacement Value	Elevator System Deficiencies
Welch	non-academic	36,840	1896	\$ 17,875,471	\$ 232,423
Starkweather	non-academic	8,706	1896	4,224,317	-
Total Before 1900		45,546		\$ 22,099,789	\$ 232,423
Sherzer	academic	35,253	1903	\$ 17,105,429	\$ 225,393
Roosevelt	academic	75,639	1924	36,701,487	221,723
Rackham	academic	45,890	1938	22,266,704	-
Ford	academic	33,333	1929	16,173,808	-
Briggs	academic	9,500	1937	4,609,581	-
One Room Schoolhouse	academic	900	1905	1,216,938	-
Mckenny	non-academic	107,103	1931	51,968,421	531,598
Jones	non-academic	70,491	1948	31,384,609	437,329
King	non-academic	61,450	1939	33,106,738	376,456
Pierce	non-academic	61,275	1948	29,731,800	370,267
Boone	non-academic	45,210	1914	21,936,755	319,442
Pease	non-academic	30,181	1914	14,644,397	233,616
Hover	non-academic	11,021	1941	7,462,965	125,121
800 Lowell	non-academic	168,000	1901	49,900,200	-
emu House	non-academic	1,434	1925	327,629	-
Total 1900-1949		756,680		\$ 338,537,461	\$ 2,840,945
Porter	academic	143,775	1966	69,762,375	374,170
Warner	academic	95,349	1964	46,265,155	200,242
Judy Sturgis Hill	academic	58,205	1959	28,242,177	109,466
Mark Jefferson	academic	262,273	1969	183,695,957	-
Pray Harrold	academic	237,108	1967	115,049,329	-
Sill	academic	107,335	1965	62,356,240	-
Strong	academic	80,713	1957	39,163,489	-
Honors College	academic	21,405	1965	1,447,664	-
Sculpture Studio	academic	4,648	1959	2,255,298	-
Goddard	non-academic	75,856	1955	33,773,260	343,082
Central Operations	non-academic	5,665	1969	2,156,258	-
Heating Plant	non-academic	23,856	1951	80,673,629	-
Total 1950-1969		1,116,188		\$ 664,840,832	\$ 1,026,960
Kresge Center	academic	12,606	1974	\$ 6,116,672	\$ -
Central Stores	non-academic	10,140	1972	4,920,122	-
Total 1970-1979		22,746		\$ 11,036,793	\$ -
Alexander	academic	86,900	1980	\$ 42,165,539	\$ 373,786
Paint Research	academic	8,000	1987	5,419,075	-
Total 1980-1989		94,900		\$ 47,584,615	\$ 373,786
Owen (COB)	academic	126,000	1990	\$ 73,941,819	\$ 453,379
Halle Library	academic	273,715	1998	132,811,744	432,423
Terrestrial and Aquatic Center	academic	5,200	1998	2,523,139	-
Physical Plant	non-academic	25,300	1995	12,276,043	-
Total 1990-1999		430,215		\$ 221,552,746	\$ 885,802
Marshall	academic	70,324	2000	\$ 34,122,548	\$ 367,111
Parsons Center	academic	9,948	2007	5,046,484	-
Wellness Center	non-academic	15,548	2019	8,692,750	-
University House	non-academic	10,700	2003	6,225,459	-
Total Post 2000		106,520		\$ 54,087,241	\$ 367,111
<u>Sitework, Drains, & Infrastructure</u>					
Campus	non-academic	n/a	n/a	n/a	\$ -
Total Sitework, Drains & Infrastructure		n/a		n/a	\$ -
Total Building Deficiencies		2,572,795.00		\$ 1,359,739,477	\$ 5,727,027

FIRE PROTECTION SYSTEMS

Overview

The Fire Protection category, formerly referred to as Life Safety, within the building includes the fire alarm system, central alarm reporting system (Fireworks), fire sprinkler system, fire pumps, standpipes, portable fire extinguishers, special hazard protection systems, components of the means of egress such as exit signs and emergency lighting systems, fire doors, and eye wash/shower systems and exterior Mass Mall Notification Speaker Array System.

Systems Condition and Adequacy

The University Fire Protection systems are functional but many have aged to the point of requiring repair or replacement. The University's central reporting (Fireworks) system that reports fire and trouble alarms to the Department of Public Safety (DPS) has been updated and is complete. The University continues to schedule buildings with old conventional systems to be upgraded giving DPS the ability to receive point-specific information from buildings having addressable fire alarm systems. This information will allow DPS to know the location and nature of the alarm prior to arrival at the facility. This upgrade system will have improved reliability and redundancy with loop connectivity between all buildings.

The following buildings are completed with the ability to send this point-specific information to DPS:

- Alexander Music Building
- Ford
- Halle
- Mark Jefferson
- Parking Structure
- Pray-Harrold
- Sculpture Studio
- Warner
- Buell
- Dining Commons – 3
- Downing
- Goddard
- Indoor Practice Facility
- Pittman
- Wise

The University has completed the installation of an exterior Mass Mall Notification Speaker Array System which is up and fully functional. The system has also been installed and online in several University buildings (Buell, Downing, Goddard, Pittman, Wise, Ford, Warner, Alexander, Halle Library, Convocation Center, Dining Commons III, Mark Jefferson, Central Operations, Rackham, Pray Harrold, Indoor Practice Facility, Student Center, and the Sculpture Studio).

The University has identified over \$38.5 million in Fire Protection System deficiency needs in General Fund buildings. EMU's future investments in the Fire Protection systems of campus buildings are detailed in the 2024-2028 Asset Preservation listing within the Implementation Plan later in this document.

Fire Protection System Deficiencies by Building

Table 15

Building Name	Primary Use	Building Sq. Ft.	Year Built	2021 Building Replacement Value	Fire Protection System Deficiencies
Welch	non-academic	36,840	1896	\$ 17,875,471	\$ 2,515,530
Starkweather	non-academic	8,706	1896	4,224,317	452,548
Total Before 1900		45,546		\$ 22,099,789	\$ 2,968,078
Roosevelt	academic	75,639	1924	\$ 36,701,487	\$ 1,374,998
Ford	academic	33,333	1929	16,173,808	667,475
Sherzer	academic	35,253	1903	17,105,429	489,926
Briggs	academic	9,500	1937	4,609,581	289,684
One Room Schoolhouse	academic	900	1905	1,216,938	69,417
Rackham	academic	45,890	1938	22,266,704	-
Jones	non-academic	70,491	1948	31,384,609	4,238,731
Mckenny	non-academic	107,103	1931	51,968,421	3,150,480
King	non-academic	61,450	1939	33,106,738	2,316,137
Pierce	non-academic	61,275	1948	29,731,800	1,237,498
Boone	non-academic	45,210	1914	21,936,755	818,159
Pease	non-academic	30,181	1914	14,644,397	576,698
Hover	non-academic	11,021	1941	7,462,965	220,267
emu House	non-academic	1,434	1925	327,629	20,024
800 Lowell	non-academic	168,000	1901	49,900,200	-
Total 1900-1949		756,680		\$ 338,537,461	\$ 15,469,493
Warner	academic	95,349	1964	\$ 46,265,155	\$ 2,555,670
Judy Sturgis Hill	academic	58,205	1959	28,242,177	700,848
Honors College	academic	21,405	1965	1,447,664	200,242
Porter	academic	143,775	1966	69,762,375	73,422
Mark Jefferson	academic	262,273	1969	183,695,957	73,422
Pray Harrold	academic	237,108	1967	115,049,329	-
Sill	academic	107,335	1965	62,356,240	-
Strong	academic	80,713	1957	39,163,489	-
Sculpture Studio	academic	4,648	1959	2,255,298	-
Goddard	non-academic	75,856	1955	33,773,260	4,365,284
Heating Plant	non-academic	23,856	1951	80,673,629	1,153,282
Central Operations	non-academic	5,665	1969	2,156,258	-
Total 1950-1969		1,116,188		\$ 664,840,832	\$ 9,122,170
Kresge Center	academic	12,606	1974	\$ 6,116,672	\$ 185,558
Central Stores	non-academic	10,140	1972	4,920,122	73,422
Total 1970-1979		22,746		\$ 11,036,793	\$ 258,980
Paint Research	academic	8,000	1987	\$ 5,419,075	\$ 135,752
Alexander	academic	86,900	1980	42,165,539	109,466
Total 1980-1989		94,900		\$ 47,584,615	\$ 245,218
Owen (COB)	academic	126,000	1990	\$ 73,941,819	\$ 1,408,371
Halle Library	academic	273,715	1998	132,811,744	162,864
Terrestrial and Aquatic Center	academic	5,200	1998	2,523,139	104,126
Physical Plant	non-academic	25,300	1995	12,276,043	56,068
Total 1990-1999		430,215		\$ 221,552,746	\$ 1,731,429
Marshall	academic	70,324	2000	\$ 34,122,548	\$ 73,422
Parsons Center	academic	9,948	2007	5,046,484	-
Wellness Center	non-academic	15,548	2019	8,692,750	-
University House	non-academic	10,700	2003	6,225,459	-
Total Post 2000		106,520		\$ 54,087,241	\$ 73,422
Sitework, Drains, & Infrastructure					
Campus	non-academic	n/a	n/a	n/a	\$ 8,729,681
Total Sitework, Drains & Infrastructure		n/a		n/a	\$ 8,729,681
Total Building Deficiencies		2,572,795		\$ 1,359,739,477	\$ 38,598,471

ELECTRIC SUPPLY AND DISTRIBUTION SYSTEMS

Overview

The Electrical Supply and Distribution System consists of an electric substation (Coral Substation) containing two 15/20/25,000 kVa transformers supplied by two separate DTE 40 kV feeder lines. The substation is supplying the campus with power at 13,200-volts (13.2 kV). The electrical distribution system has undergone major upgrades/renovations in conjunction with the Energy Center co-generation project and the Loop 1 4,800 V to 13.2 kV conversion project.

System Condition and Adequacy

A large portion of the electrical distribution system is in good condition; however, it should be noted that the transformers and associated conductors for some of the individual buildings have exceeded their useful life and are in questionable condition. A phased approach will be needed to convert these individual transformers from 4,800 V to 13.2 kV.

SITE WORK and DRAINAGE SYSTEMS

Overview

Site work and drainage systems are integral components of primary building systems and include sidewalks, loading docks, exterior ADA improvements, and signage. An assessment of these systems has identified over \$26 million in needed improvements. Improving these systems will protect the University's assets and enhance the image of the owner and the quality of life on campus.

System Condition and Adequacy

Since 2010, the University has spent over \$4.6 million preserving the site work and draining assets of the campus systems. These systems have been continually evaluated and consequently ten miles of sidewalks has been replaced in the past eight years with additional walks to be completed in the next year. Drainage repairs have been accomplished to prevent flooding, minimize damage to building systems and landscaping. This work has included installation of new drain tile, repair of catch basins, curbing, and re-grading of certain areas. A continual campus landscape evaluation takes place to install new trees, repair turf, and revitalize landscaping on an as needed basis. Improvements adhere to ADA and building code requirements, resulting in a safer and more accessible campus.

Miscellaneous Retaining Walls	Completed	Summer 2010
Judy Sturgis Hill Building/Sponberg Retaining Walls	Completed	Summer 2013
Porter Retaining Wall/Steps	Completed	Summer 2014
Alexander steps, walks and drainage	Completed	Summer 2015
Sculpture Studio drainage	Completed	Summer 2015
Rackham retaining walls/drainage	Completed	Summer 2015
Cornell site grading and drainage	Completed	Summer 2016
Judy Sturgis Hill Building south foundation drainage	Completed	Summer 2018
Ford, Boone, Pierce Retaining Wall	Completed	Summer 2019
Cornell Parking Lot Drainage	Completed	Summer 2019
Sill Hall area drainage	Complete	Fall 2020
ReclIM north and east drainage	Complete	Summer 2020

Site Work and Drainage System Deficiencies by Building
Table 16

Building Name	Primary Use	Building Sq. Ft.	Year Built	2021 Building Replacement Value	Site Work & Drainage System Deficiency
Welch	non-academic	36,840	1896	\$ 17,875,471	\$ 188,908
Starkweather	non-academic	8,706	1896	4,224,317	-
Total Before 1900		45,546		\$ 22,099,789	\$ 188,908
Roosevelt	academic	75,639	1924	\$ 36,701,487	\$ 220,267
Rackham	academic	45,890	1938	22,266,704	-
Sherzer	academic	35,253	1903	17,105,429	-
Ford	academic	33,333	1929	16,173,808	-
Briggs	academic	9,500	1937	4,609,581	-
One Room Schoolhouse	academic	900	1905	1,216,938	-
Jones	non-academic	70,491	1948	31,384,609	1,259,543
Pierce	non-academic	61,275	1948	29,731,800	570,502
800 Lowell	non-academic	168,000	1901	49,900,200	212,961
Boone	non-academic	45,210	1914	21,936,755	168,127
emu House	non-academic	1,434	1925	327,629	-
Hover	non-academic	11,021	1941	7,462,965	-
Pease	non-academic	30,181	1914	14,644,397	-
King	non-academic	61,450	1939	33,106,738	-
Mckenny	non-academic	107,103	1931	51,968,421	-
Total 1900-1949		756,680		\$ 338,537,461	\$ 2,431,400
Judy Sturgis Hill	academic	58,205	1959	\$ 28,242,177	\$ -
Sill	academic	107,335	1965	62,356,240	-
Strong	academic	80,713	1957	39,163,489	-
Sculpture Studio	academic	4,648	1959	2,255,298	-
Porter	academic	143,775	1966	69,762,375	-
Warner	academic	95,349	1964	46,265,155	-
Honors College	academic	21,405	1965	1,447,664	-
Pray Harrold	academic	237,108	1967	115,049,329	-
Mark Jefferson	academic	262,273	1969	183,695,957	-
Goddard	non-academic	75,856	1955	33,773,260	1,134,707
Heating Plant	non-academic	23,856	1951	80,673,629	94,454
Central Operations	non-academic	5,665	1969	2,156,258	-
Total 1950-1969		1,116,188		\$ 664,840,832	\$ 1,229,161
Kresge Center	academic	12,606	1974	\$ 6,116,672	\$ 94,454
Central Stores	non-academic	10,140	1972	4,920,122	-
Total 1970-1979		22,746		\$ 11,036,793	\$ 94,454
Paint Research	academic	8,000	1987	\$ 5,419,075	\$ 150,000
Alexander	academic	86,900	1980	42,165,539	-
Total 1980-1989		94,900		\$ 47,584,615	\$ 150,000
Owen (COB)	academic	126,000	1990	\$ 73,941,819	\$ 670,144
Terrestrial and Aquatic Center	academic	5,200	1998	2,523,139	-
Halle Library	academic	273,715	1998	132,811,744	-
Physical Plant	non-academic	25,300	1995	12,276,043	-
Total 1990-1999		430,215		\$ 221,552,746	\$ 670,144
Marshall	academic	70,324	2000	\$ 34,122,548	\$ -
Parsons Center	academic	9,948	2007	5,046,484	-
University House	non-academic	10,700	2003	6,225,459	1,133,762
Wellness Center	non-academic	15,548	2019	8,692,750	-
Total Post 2000		106,520		\$ 54,087,241	\$ 1,133,762
Sitework, Drains, & Infrastructure					
Campus	non-academic	n/a	n/a	n/a	\$ 20,627,305
Total Sitework, Drains & Infrastructure		n/a		n/a	\$ 20,627,305
Total Building Deficiencies		2,572,795		\$ 1,359,739,477	\$ 26,525,134

ENERGY PLAN GOALS

The goals of the Eastern Michigan University Energy Plan are as follows:

Conserve electricity on campus by using the following methods:

- Invest in projects that reduce electrical use. Projects may include:
 - Lighting retrofits
 - Lighting controls
 - Motor replacements
 - Equipment scheduling
 - Building use optimization
 - Computer upgrades
 - Variable frequency drive installations
 - Cooling system upgrades
- Measure and monitor electricity use throughout campus.

Conserve natural gas on campus by using the following methods:

- Invest in projects that will result in reduced natural gas use. Projects may include:
 - Steam trap repairs/replacements
 - Insulation of piping and ductwork
 - Heat recovery
 - Equipment scheduling
 - Building use optimization
 - Boiler replacements
 - Boiler control upgrades
 - Heat exchanger replacements
 - Conversion of steam to hot water
 - Heating reset schedules
 - Window replacements

ROADS, STREETS, PARKING LOTS AND STRUCTURES

Overview

The University Parking and Roadway System contains sixty primary parking lots, multiple specialized parking lots, and two parking structures for a total of 9,709 parking spaces. The System also contains 5.75 miles of roads, 11.5 miles of curbs, and 31 miles of sidewalks, providing access to all points on campus for pedestrian and vehicular traffic.

System Condition and Adequacy

EMU's future investments in the University Parking and Roadway System are detailed in the University's Parking 5 Year Plan.

University Roadways & Parking Infrastructure

5-year Plan
2023-2027
Table 17

<u>Lot Name</u>	<u>Lot Condition</u>	<u>Action</u>	<u>Est. Cost</u>
<u>Fiscal Year 1 - 2023</u>			
Gervin Center	Failed	Replacement	\$ 1,000,000
Estimated Year Total			\$ 1,000,000
<u>Fiscal Year 2 - 2024</u>			
East Circle Drive - Phase II	Poor	Replacement	\$ 800,000
Estimated Year Total			\$ 800,000
<u>Fiscal Year 3 - 2025</u>			
West Circle Drive - Phase I	Fair	Replacement	\$ 695,000
Estimated Year Total			\$ 695,000
<u>Fiscal Year 4 - 2026</u>			
Oakwood Student Center Improvements	Poor	Renovation	\$ 1,045,000
Estimated Year Total			\$ 1,045,000
<u>Fiscal Year 5 - 2027</u>			
West Circle Drive - Phase II	Failed	Replacement	\$ 1,425,000
Estimated Year Total			\$ 1,425,000
Five Year Project Total			\$ 4,965,000

UNIVERSITY LAND

The following table includes a listing of land owned by the University and a determination of whether capacity exists for future development.

Land	Development Plans
Central Campus	There are no current plans for further development.
West Campus (Athletic Campus and EMU House)	There are no current plans for further development.
Owen College of Business 300 W. Michigan Avenue Ypsilanti, MI 48197	The University has received a letter of intent from a private developer for the purchase of this property. It is the intention of the University to complete the sale of this land (including both the building and parking structure) and move the College of Business' academic and administrative operations to central campus. As such, the University does not have plans for further development of this land.
800 Lowell Street Ypsilanti, MI 48198	The University completed its purchase of this land in August 2020. The property is adjacent to the Northeast portion of the University's central campus. The University is currently assessing the potential uses of this property.
Parson's Center 5833 Bellows Lake Road Lake Ann, MI 49650	There are no current plans for further development.
Fish Lake Environmental Education Center 2816 Fish Lake Road Lapeer, MI 48446	There are no current plans for further development.
Eagle Crest Golf Course 1201 S. Huron St. Ypsilanti, MI 48197	The University leases this property from the Ypsilanti Charter Township on a 99 year lease. The University has received a donation for the construction of a golf training facility, which is currently planned to be built at the Eagle Crest Golf Course.

At this time, the University does not intend to explore additional acquisitions of land on the basis to meet future academic demands. The University continues to explore existing land holdings to assess their usefulness in regards to the University's strategic plan.

LAND OBLIGATED TO THE STATE BUILDING AUTHORITY

Land	SBA Lease Expiration
Porter Hall	11/30/2034
Marshall Hall	11/30/2035
Pray Harrold	06/30/2048
Strong Hall	06/30/2054



IMPLEMENTATION PLAN

Major Capital Project Request

Five-Year Capital Project Plan

Deferred Maintenance

Building Maintenance Projects > \$1 Million (FY2024-FY2028)

Non-Routine Maintenance Projects (FY2022)

Implementation Plan

Major Capital Project Request

GameAbove COLLEGE of ENGINEERING and TECHNOLOGY

<i>Is the Project a renovation or new construction?</i>	Ren (X)	New (X)
<i>Is there a 5-Year Master Plan available?</i>	Yes (X)	No ()
<i>Are professionally-developed Program Statements and/or Schematic Plans available now?</i>	Yes (X)	No ()
<i>Are Match Resources currently available?</i>	Yes (X)	No ()
<i>Has the University identified available Operating Funds</i>	Yes (X)	No ()

Executive Summary

EMU is pleased to submit our State Capital Outlay Request for FY 2024. While the renovation and expansion of Sill Hall was completed for Fall 2020, it is only the first phase of the overall effort to meet the demands of modern engineering and technology programs. Phase II of this effort will renovate, expand and repurpose Roosevelt Hall for immediate and expanding program needs of numerous advanced technology programs, and will further allow for the continued growth of engineering programs by relocating technology programs from Sill Hall to Roosevelt Hall.

The need for these programs is growing at a rapid pace, with the impact of the shortfall of students impacting companies and industries across the state. Approximately 88% of EMU’s students come from Michigan, and approximately 71% of our graduates remain in Michigan after graduation. These new high-demand technology-focused programs will therefore prepare Michigan residents for high-demand, high-wage engineering and technology careers to continue growing Michigan’s economy.

Introduction

Michigan has seen considerable transformation in both demographics as well as business and industrial needs. Certain disciplines in technology are no longer attracting enough students to remain sustainable while businesses and industries are coping with a deficiency of qualified engineers. Furthermore, many high school graduates are demanding more career-driven disciplines that can assure reasonable career success. With the ever-changing and increasing world of technology, there is a vastly increasing need for educated and qualified engineers and technologists in Michigan and throughout the country. To respond to these realities, and to enhance the investments made and committed in EMU’s laboratories, classrooms and faculty, the GameAbove College of Engineering and Technology is committed to improving and expanding its engineering and technology program offerings to meet the current and future needs of Michigan’s economy.

GameAbove College of Engineering and Technology Master Plan

Through planning and benchmarking, the College has reviewed current and planned programs to develop a Master Plan to support short and long-term GACET goals. With rapid growth in our existing advanced technology programs such as Cybersecurity, Information Assurance, Embedded Technology, Drone and Aviation Studies as well as expansions and additions to engineering programs such as Mechanical, Electrical and Computer, Civil Engineering, the College projects a 65% growth in enrollment in the next 10-15 years.

In comparing the current GACET facilities to peer institutions, the College is undersized by about 12% of available gross square footage per student with an average of 88 gsf/student. EMU has developed a plan to “right-size” the College for the current student population, and renovate, reprogram and provide new spaces to meet the needs of new programs and advanced technology. The plan provides two phases to meet the demands of new and expanded engineering programs, and to adapt and respond to the tremendous growth and high-tech systems needs of our advanced technology programs.

The initial phases of the Master Plan to meet the current and future needs of the GameAbove College of Engineering and Technology involved renovations and additions to Sill Hall to right size for current offerings, and renovations and renovations, expansion and adaptive reuse of Roosevelt Hall to create room for current and future growth.

Engineering and Technology Complex – Phase I

Sill Hall Renovation and Additions

(Local Capital Funded – FY 2018)

The modernization of Sill Hall was identified as the first priority to right size facilities for the current engineering and technology programs, and new programs added in Engineering. To that end, EMU’s Board of Regents approved a \$40 million renovation and addition project for Sill Hall in December 2017. This project was completed in August 2020.

Engineering and Technology Complex – Phase II

Advanced Technology Center – Roosevelt Hall Renovations and Expansion

(\$42.5M State Capital Outlay Request – FY 2024)

While the renovation of Sill Hall was completed, we must continue to provide new, effective and efficient educational facilities to meet the immediate and future needs of the advanced technology programs. To that end we are pleased to submit our State Capital Outlay Request for FY 2024, the renovation, expansion and adaptive reuse of Roosevelt Hall. This project is key to the current growth patterns and planned expansion of EMU’s growing technology programs.

With both phases of the GACET Master Plan, the College will create a “micro campus” for engineering and technology students, encouraging cross discipline collaboration, and giving an identity to the students and their programs.

The project will include a full renovation of Roosevelt Hall including all building mechanical and electrical systems, interiors, building envelope, IT/AV systems. The adaptive reuse will reimagine the space from an

early 1900's secondary school layout to a new, highly efficient plan providing flexible learning spaces, support and access to high tech systems and components, and provide greater educational and research facilities. The expansion of the facility will provide new entry portals for greater student access and collaborative living/learning spaces, as well as increase ADA accessibility to the building.

In addition to adding dedicated program space, it is essential that the right types of space are provided to support them. Beyond lab and classroom space, it is important to include areas for students to learn by doing hands on activities and student collaboration/teaming areas. Highlights of these support spaces include;

- Maker Spaces
- Specialty Labs
- Cybersecurity networks and labs
- Computer/Simulation Labs
- Virtual and Augmented Reality Labs
- Research Labs
- Student Success Suites
- Student Collaboration areas
- Student Organization and Academic Support areas

An additional benefit of this effort will be the relocation of over 10,000 square feet of technology programs from Sill Hall to Roosevelt Hall. This will allow for the continued growth of the engineering programs while allowing for better alignment of the technology programs in a newly renovated Roosevelt Hall.

Last renovated in 1973, Roosevelt Hall contains 75,639 sf, and houses the Schools of Cybersecurity & Applied Computing (CSAC), Technology & Professional Services Management (STPSM), and components of Visual and Built Environments (SVBE). Additionally, Roosevelt Hall has been the base of operation for the Military Science and Leadership Department and the Reserved Officers Training Corp (ROTC) program.

Programmatically, the Cybersecurity/Information Assurance and Information Technology programs have witnessed a 16% increase in student enrollment and a 25% increase in overall course load. New degrees in Cybersecurity and Information Technology continue this trend.

The Aviation programs have also increased 17% in enrollment over the last five years in response to a significant shortage of pilots worldwide. Current and future integration of our Drone Technology programs with the flight programs demonstrates our commitment to be on the cutting edge of technology in all programs.

Condition Assessments have identified Roosevelt Hall as among the top ten University facilities in greatest need for renovation with nearly \$12.6 million in deferred maintenance needs. Combining the programmatic improvement needs with the necessary replacement and improvements in building systems, building envelope and learning environment will provide an effective and efficient means of meeting the second phase requirements of the GACET Master Plan.

The projected project cost for the Engineering and Technology Complex – Phase II: Advanced Technology Center is \$42.5 million. The project timeline is three years from design approval through construction completion. Initial programming is complete with further programming and schematic design exercises are to follow. The University and GameAbove College of Engineering and Technology stands ready to begin work upon approval.

Operating Costs – Roosevelt Hall

Currently Roosevelt Hall mechanical, electrical and utility systems are at the end stage of their life cycle. The facility is connected to the campus central electrical system resulting in efficient delivery of power, however distribution and capacities are antiquated limiting use and function of the facility and programs. The building is also served from the campus central steam system for heating however once again distribution and steam to hot water transfer equipment is outdated and inefficient. Cooling of Roosevelt Hall is accomplished through several systems, most of which are far past their useful life and require considerable effort and funding to keep operational. New high-efficiency mechanical systems would be installed to provide general cooling for the building with specific systems designed for precise temperature and humidity control for tech heavy programs.

Interior finishes, and space layout create inefficiencies in custodial and maintenance services as well. While many of the interior finish surfaces have great life expectancies, their daily and long term care exceed the new standards for sustainability in modern buildings. New finishes would focus not only on the initial product selection, but also the long term cost of operation.

Over the past four years, the University has invested approximately \$33 million in various energy savings projects which include the replacement of its Co-Generation system and replacement of lighting, plumbing and controls systems. These projects have addressed financial and operational risks on both the demand and supply side of the University's energy needs. The University can now generate over 90% of its electrical and heat needs at approximately half the cost of buying this energy from a utility provider. Additionally, by replacing inefficient lighting, plumbing and controls systems, the University has decreased its electrical needs across the campus. Typically, newly renovated buildings operate at 20-25% energy savings while providing better, more adaptable learning environments.

All operating costs are funded through the University's General Fund.

The University expects an operating cost savings of 10.5%-13% (\$40,000-\$50,000) annually as shown below. Since Roosevelt Hall is currently in an operational state, the renovation will provide for custodial and energy efficiencies beyond what currently exists in the building. The renovation will provide for investments in low/no maintenance materials that will reduce custodial operational costs as well as energy efficient electrical, lighting and plumbing equipment and also controls systems. Although the project includes a 10,000 gsf expansion to the facility, the savings expected from the installation of the maintenance friendly and energy efficient equipment is expected to be greater than the additional utilities and maintenance expenses to be incurred with the additional space.

Operating Cost Element	Oper. Cost / Sq. Ft.	Pre-Reno Sq. Ft	Total Cost	Expected Savings	Op. Cost / Sq. Ft	Renovate d Sq. Ft.	Expected Costs	Savings	Savings %	Notes
Physical Plant Administratio	\$ 0.25	75,639	\$ 18,910	0%	\$ 0.25		\$ 18,910	\$ -	0.0%	A
Building Maintenance	\$ 1.27	75,639	\$ 96,062	25%	\$ 0.95	85,639	\$ 81,571	\$ (14,490)	-15.1%	B
Custodial Services	\$ 1.74	75,639	\$ 131,612	3.5%	\$ 1.68		\$ 127,005	\$ (4,606)	-3.5%	C
Utilities	\$ 1.76	75,639	\$ 133,125	25%	\$ 1.32	85,639	\$ 113,043	\$ (20,081)	-15.1%	D
Ground Maintenance	\$ 0.15	75,639	\$ 11,346	10%	\$ 0.14		\$ 10,211	\$ (1,135)	-10.0%	E
Total	\$ 5.17		\$ 391,054		\$ 4.34		\$ 350,741	\$ (40,313)	-10.3%	

A - Physical Plant Administration is expected to be consistent with pre-renovation expenses as the functions do not materially change as a result of a renovation being completed.

B - Building Maintenance savings are expected as a result of newer building systems requiring less maintenance costs following completion of a renovation. The expectation is that these expenses would be reduced significantly for 10 years, followed by 20+ years of normal maintenance

C - EMU's historical experience with savings associated with custodial services following a renovation is between 2.5%-5% - as such we have estimated 3.5% savings. The savings are associated with the upgrading of building materials and finishes that require less annual maintenance.

D - Utilities expenses are expected to decrease as a result of the installation of higher efficiency building systems including lighting, plumbing, insulation and control systems. Upon the completion of other renovation projects on campus, the University has experienced a reduction of XX% on the various utilities related expenses.

E - Ground Maintenance savings are expected as a result of exterior infrastructure enhancements, including snow melt systems at main entrances, which would provide savings for grounds maintenance work. EMU estimates the savings to be 10% for this element.

Overall Program "Capital Project" Costs

The total GACET Master Plan project is estimated to cost \$82,500,000 broken down into the following phases:

Phase I: Sill Hall Renovation and Additions (Completed August 2020)

Construction Costs	\$31,650,000
Administrative Costs and Fees	\$ 3,900,000
Owners Costs	\$ 4,450,000
Total:	\$40,000,000 (Locally Funded)

Phase II: Advance Technology Center – Roosevelt Hall (Proposed)

Construction Costs	\$33,300,000
Administrative Costs and Fees	\$ 4,000,000
Owners Costs:	\$ 5,200,000
Total:	\$42,500,000 (State Capital Outlay Request)

Other Alternatives Considered

The adjacent and offline Jones and Goddard Halls were considered for the growth and expansion of engineering and technology programs, however the technical aspects of adapting facilities designed for residence life including low floor-to-floor heights, limited structural capabilities, and advancing technology needs dictated a plan to more efficiently utilize space currently allocated but underutilized for advanced technology programs.

Roosevelt Hall is centrally located within the GameAbove College of Engineering and Technology existing facilities in the academic core of campus – close to residence halls, other academic facilities, library and parking. The buildings structure is in very good condition and therefor warrants renovation and adaptive reuse rather than pursuit adding new square footage to the university's academic inventory.

Roosevelt Hall, built in 1924 is a landmark within the Ypsilanti community. EMU is the second oldest public university in the State of Michigan. The state's investment in buildings and infrastructure should be preserved when possible and financially feasible to do so. The construction costs associated with a new building were carefully studied and found not to be fiscally prudent, given the constraints on available state and institutional funds for capital projects. We believe, when possible, existing buildings that are structurally sound should be renovated and modernized as opposed to razing buildings for new structures.

Programmatic Benefit to State Taxpayers and Specific Clientele or Constituencies

The programmatic benefit of this project will be to better serve current and future students through enhanced learning spaces and technology and to help the University recruit and retain students and faculty. Importantly, approximately 88% of EMU's students come from Michigan and approximately 71% of our graduates remain in Michigan after graduation. This project will therefore provide an important infusion of highly trained engineers to stay in Michigan and help fuel Michigan's economy.

EMU's Engineering and Technology Complex will provide economic benefit to the City of Ypsilanti and the eastern Washtenaw County area through the creation of critically needed new construction jobs over three years. EMU has a significant impact on the local economy. For this area of Washtenaw County, it is imperative that EMU remain a vital and vibrant institution. It should be noted upon successful completion of this project, EMU will have renovated three of our four oldest non-improved buildings on campus, thereby continuing our systematic approach to sustainable design through renovation and adaptive reuse of these aging but historic structures.

Funding Resources

EMU would utilize its existing financial reserves to fund the project with the State.

Five-Year Capital Project Plan (FY24-28)

Project Name:	Amount:
3D Arts Complex – FY23 (*EMU Received Matching Funds)	\$ 2,000,000
Jones Natatorium Infrastructure	\$ 3,500,000
College of Business Relocation – FY23 Allocation	\$ 2,000,000
Energy Center Systems	\$ 2,200,000
Other Projects Under \$1 million	<u>\$ 8,351,000</u>
FY23 Total Capital Plan	\$18,051,000

Notable Future Projects & Capital Plan Totals

College of Business Relocation (Multi-year project)	\$11,000,000
Indoor Practice Facility Renovation	\$ 2,100,000
3D Arts Complex (*EMU Received Matching Funds)	\$ 1,700,000
Roosevelt Hall Renovation (Potential Major Capital Project Submission)	<u>\$42,500,000</u>
Total Five-Year capital Project Plan (FY24-28):	\$57,300,000

Annually, the University will bring forward a capital plan between \$12-15 million to the Board of Regents. This capital plan will encompass notable projects, but also all routine maintenance, Information Technology, safety and security, compliance and other investments made to the campus. Over the 5 year period between 2024-2028, the University would expect to have capital investments of \$60m-75m, not including the Roosevelt Hall renovation project. Including the Roosevelt Hall renovation project with the state, this would be a total of \$102.5m-\$117.5 million.

College of Business Relocation

The University is relocating the College of Business onto its central campus. The University is currently collaborating between internal stakeholders to determine the most ideal location to meet the academic programmatic needs for the College of Business. The University expects that the total investment to be approximately \$15,000,000 and required a multi-year phased renovation plan.

3D Arts Complex

The University has committed to enhancements in the 3D Arts programs. Combined with a donation from the Windgate Foundation, the \$7,500,000 project will unite programs from three different buildings, enhancing equipment and technologies, and offering interdisciplinary experiences. The project is scheduled to be complete for the Fall 2024 semester.

Roosevelt Hall

In the Fiscal Year 2022 major project request submission, the University submitted Roosevelt Hall to the State Budget Office. The Roosevelt Hall renovation supported the GameAbove College of Engineering & Technology's advanced technology programs. The submitted project included an initial budget of \$42,500,000, Roosevelt Hall currently has \$12,600,000 in deferred maintenance (representing 3.8% of the

University's total deferred maintenance), which would be eliminated upon the completion of the renovation.

The Roosevelt Hall renovation would complete Phase II of the Engineering & Technology Complex project. Phase I included the University's self-funded \$40,000,000 renovation to Sill Hall to support the University's existing and new engineering programs. The Roosevelt Hall project proposal would include all building mechanical and electrical systems, interiors, and IT/AV systems, while also reimagining the existing floorplan to provide flexible learning spaces, support and provide access to high tech systems and provide the space and equipment for greater educational and research facilities.

The proposed renovations to Roosevelt Hall's buildings systems and infrastructure will generate operational savings. These investments are estimated to be \$11,000,000 and the University anticipates operational savings of \$40,000 annually due to the significant upgrades to more efficient systems and materials. The savings represents a 10% operational expense savings as a result of the investments in building systems.

Deferred Maintenance

As noted in Table 4, the University's general fund deferred maintenance backlog is \$320,308,602. The University's financial position does not allow it to address all of the deferred maintenance immediately or over the next five years. On an annual basis, the University approves a capital plan, which is generally valued at approximately \$15,000,000, of which approximately 66%-75% of this is related to ongoing routine maintenance. The remaining \$3,000,000-5,000,000 does not allow for the University to make significant reductions in the deferred maintenance of its buildings, without issuing debt to pay for a large renovation project. Due to the University's financial situation, the University expects to submit a Fiscal Year 2024 capital plan within \$10,000,000-\$15,000,000.

It should be noted that of the \$320,308,602 of deferred maintenance, it includes approximately \$60,300,000 related to the shuttered Jones-Goddard residence halls, \$15,700,000 related to the Owen College of Business building (which the University is planning to close on the sale of during fiscal year 2022). These four items represent \$80,000,000, or 23.7% of the outstanding deferred maintenance.

Ongoing State Building Authority Financed Projects

The University does not currently have any on-going projects being financed by the State Building Authority.

Building Maintenance Projects Greater Than \$1M (FY2024-2028)

<u>Project Name:</u>	<u>Amount:</u>
Campus Electrical System Improvements *	\$ 2,500,000
Fire Alarm Replacement – Various Buildings *	\$ 2,200,000
Elevator Systems – Various Buildings *	\$ 1,800,000
Mechanical Systems – Various Buildings *	\$ 8,300,000
Roof Replacements – Various Buildings *	<u>\$ 7,000,000</u>
Total Building Projects Greater than \$1 Million:	\$21,800,000
<i>* Multiyear Project – Remaining Balance/Total Funding</i>	

Non-Routine Maintenance Projects (FY2023)

In FY2023, the University has budgeted for \$6,700,000 of capital related expenditures attributable to non-routine maintenance.

<u>Project Element:</u>	<u>Amount:</u>	<u>Funding Source:</u>
Energy Center Systems and Controls	\$2,200,000	Reserves
Jones Natatorium Infrastructure	\$3,500,000	Tuition & Fees
Contingency	<u>\$1,000,000</u>	Tuition & Fees
Total Non-Routine Maintenance:	\$6,700,000	

APPENDIX 1

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APPENDIX 2

Fall 2022 Undergraduate & Graduate Enrollment By College, Department and Major

Fall 2022 Undergraduate Enrollment by College, Department and Major

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
Academic Affairs	Continuing Education	Continuing Education	0	2	2	1	1	0	2
	Continuing Education Total		0	2	2	1	1	0	2
	Undeclared	Eastern Scholars Program	0	50	50	50	0	0	50
	Undeclared Total		0	50	50	50	0	0	50
	University - General Studies	Early College Alliance	108	150	258	124	11	123	258
		ESL Intensive English Language	6	0	6	6	0	0	6
		Exploratory	321	58	379	144	37	198	379
		Guest/Self Improvement	4	25	29	18	8	3	29
		Honors College	1	0	1	1	0	0	1
		Individualized Studies Program	33	51	84	9	44	31	84
		Individualized Studies-Intent	7	31	38	2	30	6	38
		Undeclared	16	62	78	32	33	13	78
	University - General Studies Total		496	377	873	336	163	374	873
Academic Affairs Total			496	429	925	387	164	374	925
College of Arts & Sciences	Africology&African Amer Studie	Africology/African Am Studies	3	0	3	1	0	2	3
	Africology&African Amer Studie Total		3	0	3	1	0	2	3
	Biology	Biology	229	88	317	137	5	175	317
		Biology - Teaching	11	1	12	6	0	6	12
		Pre-Chiropractic	3	0	3	1	0	2	3
		Pre-Med/Pre-Health Professions	12	0	12	2	0	10	12
		Pre-Medicine/Osteopathy	56	4	60	22	1	37	60
		Pre-Optometry/Podiatry	3	0	3	1	0	2	3
		Pre-Veterinary	33	2	35	18	2	15	35
	Biology Total		347	95	442	187	8	247	442
	Chemistry	Biochemistry	42	7	49	23	1	25	49
		Biochemistry - General	33	3	36	13	0	23	36
		Chemistry	30	9	39	26	0	13	39
		Chemistry - General	17	5	22	9	0	13	22
		Chemistry - Teaching	1	1	2	0	0	2	2
		Fermentation Science	4	1	5	4	1	0	5
		Pre-Dentistry	21	3	24	11	0	13	24
		Pre-Mortuary Science	1	0	1	1	0	0	1
		Pre-Pharmacy	10	1	11	4	0	7	11
		Professional Chemistry	0	1	1	0	1	0	1
	Chemistry Total		159	31	190	91	3	96	190

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
	Comm, Media & Theatre Arts	Arts and Entertainment Mgmt	19	5	24	3	2	19	24
		Cinema Studies	22	2	24	9	0	15	24
		Comm, Media & Thtr Arts Comp	11	6	17	7	3	7	17
		Comm, Theatre Arts - Teaching	9	1	10	2	1	7	10
		Communication	152	63	215	29	70	116	215
		Digital Media Production	76	32	108	33	10	65	108
		Electrnc Media/Film -Film Conc	4	1	5	3	0	2	5
		Electronic Media-Film Studies	0	4	4	2	1	1	4
		Entertainment Design/Tech	20	10	30	13	1	16	30
		Journalism	36	5	41	7	3	31	41
		Media Studies and Journalism	19	7	26	7	4	15	26
		Musical Theatre	8	0	8	5	0	3	8
		Theatre Arts	28	9	37	21	0	16	37
	Comm, Media & Theatre Arts Total		404	145	549	141	95	313	549
	Computer Science	Computer Science	159	46	205	66	9	130	205
		Computer Science Applied	117	58	175	72	10	93	175
		Computer Science Curriculum	13	2	15	4	0	11	15
	Computer Science Total		289	106	395	142	19	234	395
	Economics	Economics	16	8	24	9	4	11	24
		Economics - BBA Intent	4	1	5	1	0	4	5
		Quantitative Economics	7	1	8	1	1	6	8
	Economics Total		27	10	37	11	5	21	37
	English Language & Literature	Children's & Young Adult Lit	8	2	10	3	1	6	10
		Creative Writing	4	3	7	3	0	4	7
		English	74	12	86	36	6	44	86
		English Language	2	0	2	1	0	1	2
		English Linguistics	2	1	3	0	1	2	3
		Language, Literature and Writg	0	4	4	4	0	0	4
		Language, Litr, Writg - Tchrs	82	20	102	44	10	48	102
		Professional Writing	0	3	3	1	2	0	3
		Public Relations	20	5	25	8	2	15	25
		Written Communication	0	1	1	0	1	0	1
	English Language & Literature Total		192	51	243	100	23	120	243
	Geography & Geology	Earth Science	6	1	7	4	0	3	7
		Earth Science - Teaching	2	0	2	0	0	2	2
		Geography	4	4	8	0	1	7	8
		Geography/History Comp Maj	1	1	2	1	1	0	2
		Geology - General	10	1	11	5	0	6	11
		Geology - Professional	9	9	18	15	0	3	18
		Geology-Hydrogeology	1	1	2	1	0	1	2
		Geospatial Info Sci & Tech	6	2	8	5	0	3	8
		Geo-Tourism	1	1	2	1	0	1	2
		Geotourism & Hist Preservation	1	1	2	0	1	1	2
		Urban and Regional Planning	15	6	21	15	0	6	21
	Geography & Geology Total		56	27	83	47	3	33	83

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
	History & Philosophy	History	44	25	69	19	11	39	69
		History/Geography Comp Maj	15	2	17	6	1	10	17
		Philosophy	11	4	15	10	1	4	15
		Religious Studies	3	0	3	1	0	2	3
		Social Stu/Economics Comp Maj	3	0	3	1	0	2	3
		Social Stu/Geography Comp Maj	6	2	8	3	2	3	8
		Social Stu/History Comp Maj	104	30	134	41	13	80	134
		Social Stu/Pol Sci Comp Maj	17	1	18	6	1	11	18
	History & Philosophy Total		203	64	267	87	29	151	267
	Interdiscip Arts & Sciences	Data Science & Analytics	20	9	29	10	0	19	29
		Environ Sci & Society Interdis	84	27	111	41	9	61	111
		Neuroscience Interdisciplinary	65	11	76	24	2	50	76
	Interdiscip Arts & Sciences Total		169	47	216	75	11	130	216
	Mathematics and Statistics	Actuarial Science and Economic	11	6	17	4	0	13	17
		Elem Ed Math Comprehensive	4	4	8	4	1	3	8
		Elementary Educ Mathematics	1	1	2	2	0	0	2
		Mathematics	28	6	34	16	3	15	34
		Mathematics-Secondary Educ	31	21	52	27	1	24	52
		Statistics	9	2	11	4	1	6	11
	Mathematics and Statistics Total		84	40	124	57	6	61	124
	Music and Dance	Dance	13	4	17	9	2	6	17
		Music	20	6	26	14	1	11	26
		Music Education, Instrumental	61	8	69	36	0	33	69
		Music Education, Vocal	30	1	31	16	1	14	31
		Music Performance	20	2	22	9	0	13	22
		Music Therapy	30	17	47	25	0	22	47
		School of MUSD - Intent	5	2	7	4	2	1	7
	Music and Dance Total		179	40	219	113	6	100	219
	Physics and Astronomy	Integrated Science Sec Teach	15	3	18	10	1	7	18
		Physical Sci Tchg - Bio Min	1	0	1	1	0	0	1
		Physics	13	0	13	9	0	4	13
		Physics - Teaching	0	2	2	1	0	1	2
		Physics-Engineering	9	1	10	6	0	4	10
		Physics-Research	6	2	8	7	0	1	8
		Science Lit for Earth Science	1	0	1	0	0	1	1
		Science Literacy for Bio	6	0	6	3	0	3	6
	Physics and Astronomy Total		51	8	59	37	1	21	59
	Political Science	Combined MPA Program - Intent	1	0	1	0	0	1	1
		International Affairs	16	2	18	6	1	11	18
		Political Science	106	18	124	38	15	71	124
		Pre-Law Undeclared	32	1	33	16	2	15	33
		Public and Nonprofit Administr	9	3	12	3	2	7	12
		Public Safety Administration	2	6	8	1	6	1	8
	Political Science Total		166	30	196	64	26	106	196
	Psychology	Psychology	553	113	666	179	98	389	666
	Psychology Total		553	113	666	179	98	389	666

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
	School of Art and Design	Animation and Gaming	1	0	1	0	0	1	1
		Art	88	32	120	35	9	76	120
		Art - 30 Hour	25	17	42	11	8	23	42
		Art History	12	3	15	9	0	6	15
		K-12 Visual Art Education	36	12	48	19	2	27	48
		Simulation, Animation & Gaming	100	34	134	42	15	77	134
	School of Art and Design Total		262	98	360	116	34	210	360
	School of Hlth Prom/Human Perf	Exercise Science	1	0	1	1	0	0	1
	School of Hlth Prom/Human Perf Total		1	0	1	1	0	0	1
	Sociology/Anthro/Criminology	Anthropology	28	11	39	5	4	30	39
		Criminology and Criminal Justice	231	50	281	62	57	162	281
		Sociology	31	6	37	8	4	25	37
	Sociology/Anthro/Criminology Total		290	67	357	75	65	217	357
	University - General Studies	Honors - Intent	1	0	1	1	0	0	1
	University - General Studies Total		1	0	1	1	0	0	1
	Women's and Gender Studies	Women's and Gender Studies	8	4	12	5	1	6	12
	Women's and Gender Studies Total		8	4	12	5	1	6	12
	World Languages	French	4	2	6	2	2	2	6
		French - Teaching	1	0	1	1	0	0	1
		German Studies	2	0	2	0	0	2	2
		Japanese Lang, Cult -Teaching	5	1	6	1	2	3	6
		Japanese Language & Culture	18	13	31	5	14	12	31
		K-12 Bilingual Education	1	0	1	1	0	0	1
		K12 Certification in French	2	1	3	1	0	2	3
		K12 Certification in German	2	1	3	0	1	2	3
		K12 Certification in Spanish	7	3	10	6	0	4	10
		Lang & Int'l Careers - Spanish	0	1	1	0	0	1	1
		Language and Internatnl Trade	5	2	7	2	1	4	7
		Spanish	8	2	10	4	0	6	10
		Spanish - Teaching	1	0	1	0	1	0	1
		Tchgng Eng to Spkrs Oth Lng Int	2	2	4	0	2	2	4
		Tchgng Eng to Spkrs Other Langs	3	1	4	0	1	3	4
	World Languages Total		61	29	90	23	24	43	90
College of Arts & Sciences Total			3505	1005	4510	1553	457	2500	4510
College of Business	Accounting, Finance & Info Sys	Accounting	44	37	81	13	15	53	81
		Accounting Information Sys-Int	10	0	10	5	0	5	10
		Accounting Information Systems	4	1	5	1	0	4	5
		Accounting/Accounting 150 hrs	9	11	20	5	2	13	20
		Accounting/Accounting 150 Int	10	5	15	3	1	11	15
		Accounting/Taxation 150 hr Int	6	0	6	1	1	4	6
		Accounting/Taxation 150 hrs	1	0	1	0	0	1	1
		Accounting-Int	66	24	90	33	12	45	90
		Acctg/Tax Consulting 150 Int	2	0	2	0	0	2	2
		AlS/Accounting 150 Int	1	1	2	0	1	1	2
		Computer Information Sys-Intnt	22	8	30	2	5	23	30
		Computer Information Systems	18	17	35	7	3	25	35
		Finance	48	31	79	27	9	43	79
		Finance-Intent	79	7	86	26	6	54	86
	Accounting, Finance & Info Sys Total		320	142	462	123	55	284	462

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
	Business Administration	Business Administration-Undecl	147	34	181	50	32	99	181
		International Business-Intent	34	2	36	8	1	27	36
	Business Administration Total		181	36	217	58	33	126	217
	Economics	Economics - BBA	2	1	3	0	1	2	3
		Economics - BBA Intent	5	0	5	2	0	3	5
	Economics Total		7	1	8	2	1	5	8
	Management	Entrepreneurship	9	5	14	1	4	9	14
		Entrepreneurship-Intent	48	8	56	16	11	29	56
		General Business	16	16	32	3	16	13	32
		General Business-Intent	101	18	119	31	22	66	119
		Management	52	25	77	4	25	48	77
		Management-Intent	46	18	64	11	15	38	64
	Management Total		272	90	362	66	93	203	362
	Marketing	International Bus/Entrepreneur	1	0	1	0	0	1	1
		International Bus/Finance	1	0	1	0	0	1	1
		International Bus/Gen Bus	1	1	2	0	0	2	2
		International Bus/Management	5	1	6	0	2	4	6
		International Bus/Marketing	4	0	4	1	0	3	4
		International Bus/SupplChnMgn	2	0	2	0	1	1	2
		Marketing	78	25	103	15	13	75	103
		Marketing-Intent	114	9	123	44	12	67	123
		Supply Chain Management	47	19	66	11	9	46	66
		SupplyChain Management Inten	23	24	47	7	16	24	47
	Marketing Total		276	79	355	78	53	224	355
College of Business Total			1056	348	1404	327	235	842	1404
College of Education	Special Education & Communication Sciences and	Comm Science Dis K12 Intent	2	0	2	1	0	1	2
		Comm Sciences & Disorders	62	9	71	21	3	47	71
		Elem Cognitive Impairment	20	11	31	11	5	15	31
		Elem Emotional Impairment	7	2	9	2	2	5	9
		Elem Phy/Other Health Impair	1	1	2	1	0	1	2
		K-12 Autism Spectrum Dis - Elm	36	7	43	6	6	31	43
		K-12 Autism Spectrum Dis - Sec	8	1	9	1	1	7	9
		K-12 Comm Sci & Disord Elem	4	0	4	2	0	2	4
		Secdry Cognitive Impairment	9	3	12	5	3	4	12
		Secdry Emotional Impairment	2	1	3	1	1	1	3
		Sp Ed K12 Endorsement	1	0	1	0	0	1	1
		Spec Ed Learning Dis - Elem	8	5	13	7	2	4	13
		Spec Ed Learning Dis - Sec	4	1	5	2	0	3	5
		Special Education-Undeclared	18	11	29	15	1	13	29
		Speech/Lang Path - Health Care	2	1	3	1	0	2	3
	Special Education & Communication Sciences and Disorders Total		184	53	237	76	24	137	237

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
	Teacher Education	Children and Families	10	14	24	13	2	9	24
		Early Childhood Education	0	2	2	2	0	0	2
		Elem Early Child Teach & Learn	213	39	252	75	17	160	252
		Elem Ed Early Childhood Comp	65	60	125	70	3	52	125
		Elem Ed Integrated Sci Comp	5	0	5	1	0	4	5
		Elem Ed Language Arts Comp	35	11	46	11	3	32	46
		Elem Ed Reading Comprehensive	14	5	19	1	3	15	19
		Elem Ed Social Studies Comp	19	4	23	3	3	17	23
		Elementary Education-Intent	9	9	18	5	2	11	18
		Integrated Science El Teaching	2	0	2	0	0	2	2
		Language Arts Group	0	1	1	0	1	0	1
		Secondary Education-Intent	1	5	6	3	0	3	6
		Social Studies Grp for Elem Ed	1	0	1	0	0	1	1
		Teacher Prep - Elementary	8	8	16	10	1	5	16
		Teacher Prep - Secondary	9	43	52	30	5	17	52
		Teaching & Learning	5	1	6	1	1	4	6
		Teaching & Learning - Sec Cert	7	0	7	3	1	3	7
		Two Minors - Elem Ed	34	10	44	13	0	31	44
	Teacher Education Total		437	212	649	241	42	366	649
College of Education Total			621	265	886	317	66	503	886
College of Engineering & Tech	Coll of Technology Interdisc	Sec Ed Engrng & Tech Workforce	12	0	12	8	0	4	12
	Coll of Technology Interdisc Total		12	0	12	8	0	4	12
	Engineering, School of	Applied Tech (Transfer)	0	1	1	0	1	0	1
		Computer & Elec Eng Technology	40	44	84	24	43	17	84
		Computer Engineering Tech	11	11	22	11	1	10	22
		Electrical & Comp Eng - Intent	43	13	56	29	3	24	56
		Electrical & Comp Engineering	20	14	34	20	0	14	34
		Electronic Engineering Technol	5	8	13	10	0	3	13
		Mechanical Eng Tech - Intent	15	50	65	11	48	6	65
		Mechanical Engineering	66	15	81	60	0	21	81
		Mechanical Engineering -Intent	76	13	89	42	1	46	89
		Mechanical Engineering Technol	11	6	17	13	0	4	17
		Pre-Engineering	6	1	7	1	0	6	7
		Product Design & Development	5	2	7	4	1	2	7
		Product Dsgn Engineering Tech	45	51	96	38	33	25	96
	Engineering, School of Total		343	229	572	263	131	178	572
	Info Sec & App Comp, School of	Cybersecurity - Combined	1	0	1	0	0	1	1
		Cybersecurity - Combined Int	23	6	29	5	3	21	29
		Info Assrnce & Cyber Def - Int	10	3	13	0	5	8	13
		Info Assurance & Cyber Defense	136	65	201	13	87	101	201
		Information Technology	16	3	19	3	3	13	19
		Information Technology -Intent	4	2	6	0	2	4	6
	Info Sec & App Comp, School of Total		190	79	269	21	100	148	269

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
	Tech & Prof ServMgt,School of	Aviation Flight Tech	17	14	31	11	3	17	31
		Aviation Flight Tech - Intent	95	14	109	78	1	30	109
		Aviation Management Technology	27	11	38	6	4	28	38
		Aviation Mgmt Tech - Intent	26	3	29	15	0	14	29
		Bus, Mgmt, Mktg, Tech	97	4	101	37	6	58	101
		Hotel and Restaurant Mgmt	16	9	25	11	1	13	25
		Paralegal	4	9	13	6	2	5	13
		Paralegal - Intent	18	8	26	2	1	23	26
		Technology Management	15	49	64	1	58	5	64
	Tech & Prof ServMgt,School of Total		315	121	436	167	76	193	436
	Visual&Built Envmt, School of	Apparel, Textile Merchandising	1	3	4	2	1	1	4
		Civil Engineering	8	0	8	4	0	4	8
		Civil Engineering - Intent	18	2	20	8	1	11	20
		Communication Technology	8	8	16	6	1	9	16
		Construction Management	68	56	124	22	39	63	124
		Fashion Marketing Innovation	35	5	40	6	5	29	40
		Interior Design	77	16	93	30	2	61	93
		Pre-Architecture	6	0	6	3	0	3	6
	Visual&Built Envmt, School of Total		221	90	311	81	49	181	311
College of Engineering & Tech Total			1081	519	1600	540	356	704	1600
College of Health & Human Serv	School of Health Sciences	Clin Lab Sci - Cytogenetics	1	1	2	1	0	1	2
		Clin Lab Sci - Histotechnology	2	0	2	2	0	0	2
		Clin Lab Sci - Med Lab PreProf	0	2	2	1	0	1	2
		Clin Lab Sci - Med Lab Sci Int	1	0	1	1	0	0	1
		Clin Lab Sci - Med Lab Science	28	15	43	22	2	19	43
		Clinical Lab Sciences (Clinic)	0	1	1	1	0	0	1
		Clinical Sciences	14	2	16	3	1	12	16
		Combined OT (BS/MOT)	21	0	21	21	0	0	21
		Cytogenetics	3	0	3	2	0	1	3
		Dietetics	16	1	17	0	9	8	17
		Dietetics - Combined	10	0	10	0	2	8	10
		Dietetics - Combined Intent	22	26	48	1	34	13	48
		Dietetics-Intent	5	13	18	1	10	7	18
		Health Administration	26	20	46	0	10	36	46
		Health Administration Intent	38	18	56	6	26	24	56
		Health Informatics	1	1	2	0	1	1	2
		Pre-OT	59	8	67	16	4	47	67
		Therapeutic Recreation	28	21	49	22	1	26	49
	School of Health Sciences Total		275	129	404	100	100	204	404

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
	School of Hlth Prom/Human Perf	Combined Athl Trng - Intent	14	3	17	5	0	12	17
		Combined Athl Trng (BS/MATR)	3	0	3	3	0	0	3
		Combined ExSci/Ath Trng - Int	1	0	1	1	0	0	1
		Exer Sci Ortho\Prosth Comb Int	17	0	17	5	0	12	17
		Exercise Sci & Phy Comb - Int	2	3	5	4	0	1	5
		Exercise Sci Ortho\Prosth Comb	2	0	2	0	0	2	2
		Exercise Science	127	18	145	59	3	83	145
		Exercise Science-Intent	5	4	9	2	0	7	9
		K-12 Physical Education Tchng	3	0	3	3	0	0	3
		Public Health	14	7	21	5	4	12	21
		Public Health - Intent	26	5	31	1	6	24	31
		Sport Management	124	19	143	68	6	69	143
		Sport Perf & Fitness Entr	5	3	8	4	0	4	8
		School of Hlth Prom/Human Perf Total	343	62	405	160	19	226	405
		School of Nursing							
		Nursing	232	16	248	168	12	68	248
		Nursing - 2nd Bachelor	51	0	51	44	0	7	51
		Nursing (Completion)-Intent	0	1	1	1	0	0	1
		Nursing Intent	349	54	403	141	35	227	403
		RN to BSN Nursing	31	378	409	0	408	1	409
		RN to BSN Nursing - Intent	1	31	32	0	32	0	32
	School of Nursing Total		664	480	1144	354	487	303	1144
	School of Social Work								
		Social Work	141	54	195	36	50	109	195
		Social Work - Intent	100	44	144	33	34	77	144
	School of Social Work Total		241	98	339	69	84	186	339
College of Health & Human Serv Total			1523	769	2292	683	690	919	2292
Grand Total			8282	3335	11617	3807	1968	5842	11617

Fall 2022 Graduate Enrollment by College, Department and Major

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
Academic Affairs	Graduate Studies - University	Graduate Academic Pathway	3	1	4	3	0	1	4
		Interdisciplinary Studies	0	2	2	1	0	1	2
		Undeclared	1	12	13	8	4	1	13
	Graduate Studies - University Total		4	15	19	12	4	3	19
	University - General Studies	Guest/Self Improvement	0	1	1	1	0	0	1
	University - General Studies Total		0	1	1	1	0	0	1
Academic Affairs Total			4	16	20	13	4	3	20
College of Arts & Sciences	Africology&African Amer Studie	Africology/African Am Studies	3	0	3	0	2	1	3
	Africology&African Amer Studie Total		3	0	3	0	2	1	3
	Biology	Biology General	3	10	13	9	0	4	13
		Ecology, Evolution & Organ Bio	1	12	13	10	0	3	13
		Molecular/Cellular Biology	3	5	8	5	0	3	8
	Biology Total		7	27	34	24	0	10	34
	Chemistry	Chemistry	0	16	16	7	1	8	16
	Chemistry Total		0	16	16	7	1	8	16
	Comm, Media & Theatre Arts	Applied Drama/Theatre Young	7	1	8	5	0	3	8
		Arts Administration	0	2	2	1	0	1	2
		Communication	2	13	15	3	1	11	15
		Theatre Arts - General	1	0	1	1	0	0	1
		Theatre Arts - Interp/Perform	1	0	1	0	0	1	1
	Comm, Media & Theatre Arts Total		11	16	27	10	1	16	27
	Computer Science	Computer Science	10	14	24	20	3	1	24
	Computer Science Total		10	14	24	20	3	1	24
	Economics	Applied Econometrics	6	2	8	0	0	8	8
		Economics	1	2	3	2	0	1	3
		International Econ & Devlpmnt	1	1	2	1	0	1	2
		Quantitative Economics - Comb	1	0	1	1	0	0	1
		Trade & Development	0	1	1	1	0	0	1
	Economics Total		9	6	15	5	0	10	15
	English Language & Literature	Children's Literature	5	5	10	0	6	4	10
		Creative Writing	5	6	11	7	1	3	11
		English Linguistics	0	4	4	4	0	0	4
		Literature	2	7	9	2	1	6	9
		Writing Studies	2	5	7	0	2	5	7
		Written Communication	0	1	1	1	0	0	1
	English Language & Literature Total		14	28	42	14	10	18	42
	Geography & Geology	Geographic Info Systems	2	7	9	2	1	6	9
		GIS Professional	0	1	1	1	0	0	1
		Historic Preservation	5	30	35	33	0	2	35
		Urban and Regional Planning	0	2	2	0	0	2	2
	Geography & Geology Total		7	40	47	36	1	10	47
	History & Philosophy	History	4	16	20	11	4	5	20
		Philosophy	1	7	8	3	0	5	8
		Social Science	0	2	2	0	2	0	2
	History & Philosophy Total		5	25	30	14	6	10	30
	Mathematics and Statistics	Applied Statistics	4	3	7	7	0	0	7
		Mathematics	3	12	15	14	0	1	15
	Mathematics and Statistics Total		7	15	22	21	0	1	22

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
	Music and Dance	Music	2	11	13	13	0	0	13
	Music and Dance Total		2	11	13	13	0	0	13
	Physics and Astronomy	Physics	0	7	7	2	0	5	7
	Physics and Astronomy Total		0	7	7	2	0	5	7
	Political Science	Nonprofit Management	0	1	1	0	0	1	1
		Political Science Bach/MPA	1	0	1	1	0	0	1
		Public & Nonprofit Adm BA/MPA	1	0	1	0	0	1	1
		Public Administration	4	24	28	11	6	11	28
		Public Personnel Mgmt	0	1	1	1	0	0	1
	Political Science Total		6	26	32	13	6	13	32
	Psychology	Clinical Behavioral Psychology	13	15	28	27	0	1	28
		Clinical Psych Pre-Doctorate	4	0	4	4	0	0	4
		Clinical Psychology	18	8	26	26	0	0	26
		Clinical Psychology - PhD	7	34	41	19	5	17	41
		Psychology	1	1	2	2	0	0	2
	Psychology Total		43	58	101	78	5	18	101
	School of Art and Design	K-12 Visual Art Education	0	2	2	1	0	1	2
		Studio Art - MA	0	2	2	2	0	0	2
		Studio Art - MFA	5	4	9	9	0	0	9
	School of Art and Design Total		5	8	13	12	0	1	13
	Sociology/Anthro/Criminology	Criminology and Criminal Justc	3	8	11	3	2	6	11
		Cultural Museum Studies	0	3	3	0	3	0	3
		Sociology	2	0	2	0	0	2	2
	Sociology/Anthro/Criminology Total		5	11	16	3	5	8	16
	Women's and Gender Studies	Women's and Gender Studies	5	2	7	3	1	3	7
	Women's and Gender Studies Total		5	2	7	3	1	3	7
	World Languages	Spanish	0	3	3	1	1	1	3
		TESOL	2	18	20	1	9	10	20
	World Languages Total		2	21	23	2	10	11	23
	(blank)	Sociology	0	1	1	0	0	1	1
	(blank) Total		0	1	1	0	0	1	1
College of Arts & Sciences Total			141	332	473	277	51	145	473
College of Business	Accounting, Finance & Info Sys	Accounting	9	16	25	13	6	6	25
		Accounting & Tax Consult 150hr	1	0	1	0	0	1	1
		Accounting/Accounting 150 hrs	9	8	17	6	2	9	17
		Accounting/Taxation 150 hrs	2	0	2	0	0	2	2
		AIS/Accounting 150 hrs	1	0	1	0	0	1	1
		Finance MS	4	6	10	8	0	2	10
		Information Systems	12	8	20	11	1	8	20
		Tax Consulting	0	1	1	0	1	0	1
		Taxation	1	2	3	2	0	1	3
	Accounting, Finance & Info Sys Total		39	41	80	40	10	30	80

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
	Business Administration	Business Administration	21	47	68	3	41	24	68
		Business Analytics	3	6	9	3	2	4	9
		E-Business	0	2	2	1	1	0	2
		Entrepreneurship	1	4	5	0	3	2	5
		Finance	4	7	11	0	5	6	11
		Human Resource Management	1	17	18	1	12	5	18
		Information Systems	0	4	4	0	2	2	4
		International Business	2	0	2	0	0	2	2
		Management	3	10	13	0	7	6	13
		Marketing	6	5	11	0	7	4	11
		Master of Business Admin	7	4	11	2	2	7	11
		Nonprofit Management	1	2	3	0	2	1	3
		Organizational Development	0	1	1	1	0	0	1
		Sport Management	1	1	2	0	1	1	2
		Supply Chain Management	0	6	6	4	2	0	6
	Business Administration Total		50	116	166	15	87	64	166
	Management	Entrepreneurship	0	1	1	0	1	0	1
		Human Resource/Org Dev-China	30	0	30	30	0	0	30
		Human Resource/Org Developmnt	10	54	64	16	16	32	64
	Management Total		40	55	95	46	17	32	95
	Marketing	Integrated Marketing Comm	7	19	26	0	26	0	26
	Marketing Total		7	19	26	0	26	0	26
College of Business Total			136	231	367	101	140	126	367
College of Education	Leadership & Counseling	Academic Advising	0	1	1	0	1	0	1
		Admin Leadership in Higher Ed	0	3	3	1	0	2	3
		Basic School Admin	2	31	33	0	33	0	33
		Clinical Mental Health Counsel	28	25	53	44	0	9	53
		College Counseling	7	3	10	7	0	3	10
		Educational Leadership	0	61	61	3	52	6	61
		Higher Ed Student Affairs	13	18	31	7	16	8	31
		K12 Administration	10	118	128	1	126	1	128
		School Counseling	3	18	21	15	0	6	21
	Leadership & Counseling Total		63	278	341	78	228	35	341
	Special Education & Communication Sciences and Disorders	Autism Spec Dis No Current Crt	0	5	5	2	3	0	5
		Comm Sciences & Disorders	71	9	80	79	0	1	80
		Learning Dis No Current Cert	0	2	2	0	2	0	2
		Learning Disabilities	0	1	1	0	1	0	1
		SEM-T El Ed Cognitive Impair	1	1	2	0	1	1	2
		Sp Ed Admin & Supervision	0	10	10	0	10	0	10
		Spec Ed Tchg Endorsement	0	3	3	3	0	0	3
		Special Ed Certified Tchr	1	2	3	0	3	0	3
		Special Education	29	86	115	12	87	16	115
		Special Education - FA19 Only	0	2	2	1	1	0	2
		Special Education Endorsement	0	2	2	0	2	0	2
	Special Education & Communication Sciences and Disorders Total		102	123	225	97	110	18	225

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
	Teacher Education	Curriculum & Instruction	15	98	113	1	112	0	113
		Early Childhood Education	0	43	43	0	42	1	43
		Early Literacy Instruction	0	1	1	0	1	0	1
		Educational Psychology	5	35	40	0	40	0	40
		Educational Studies	4	23	27	8	12	7	27
		Literacy Coaching	0	1	1	0	1	0	1
		Reading	5	37	42	0	42	0	42
		Secdry Tching - Bio Conc	2	1	3	3	0	0	3
		Secdry Tching - Earth Sci Conc	0	1	1	1	0	0	1
		Secdry Tching - Engl Conc	4	5	9	1	3	5	9
		Secdry Tching - Int Sci Conc	0	2	2	2	0	0	2
		Secdry Tching - Math Conc	0	1	1	0	1	0	1
		Secndry Comm Taught World Lang	0	2	2	2	0	0	2
		Secndry Less Comm World Lang	1	0	1	0	0	1	1
		Social Found & Comm Educ	2	3	5	3	1	1	5
		Teacher Certification Renewal	0	1	1	1	0	0	1
		Teacher Endorsement	0	6	6	0	6	0	6
	Teacher Education Total		38	260	298	22	261	15	298
College of Education Total			203	661	864	197	599	68	864
College of Engineering & Tech	Coll of Technology Interdisc	Technology Doctorate	7	17	24	19	2	3	24
	Coll of Technology Interdisc Total		7	17	24	19	2	3	24
	Engineering, School of	Computer Aided Engineering	8	6	14	3	1	10	14
		Engineering Management	1	22	23	1	21	1	23
		Polymers and Coatings Technlgy	5	8	13	3	5	5	13
		Project Leadership	0	1	1	0	1	0	1
		Quality Management	0	28	28	0	27	1	28
	Engineering, School of Total		14	65	79	7	55	17	79
	Info Sec & App Comp, School of	Cybersecurity	13	29	42	0	36	6	42
	Info Sec & App Comp, School of Total		13	29	42	0	36	6	42
	Tech & Prof ServMgt,School of	Technology Studies	3	22	25	0	19	6	25
	Tech & Prof ServMgt,School of Total		3	22	25	0	19	6	25
	Visual&Built Envmt, School of	Construction	0	1	1	1	0	0	1
		Construction Management	6	8	14	11	1	2	14
		Interior Design	4	2	6	4	0	2	6
	Visual&Built Envmt, School of Total		10	11	21	16	1	4	21
College of Engineering & Tech Total			47	144	191	42	113	36	191
College of Health & Human Serv	School of Health Sciences	Clinical Research Admin	7	15	22	19	1	2	22
		Combined OT (BS/MOT)	10	0	10	10	0	0	10
		Dietetics	31	1	32	0	14	18	32
		Dietetics - Combined	0	1	1	0	1	0	1
		Gerontology	0	1	1	0	0	1	1
		Health Administration	4	18	22	13	0	9	22
		Human Nutrition	1	14	15	0	13	2	15
		Occupational Therapy	40	0	40	40	0	0	40
	School of Health Sciences Total		93	50	143	82	29	32	143

College	Department	Major	Full-time	Part-time	Grand Total	In-Person	Online-Only	Both	Grand Total
	School of Hlth Prom/Human Perf	Athletic Training	7	0	7	7	0	0	7
		Combined Athl Trng (BS/MATR)	4	0	4	4	0	0	4
		Exercise Physiology	4	7	11	1	3	7	11
		Exercise Sci & Physio - Comb	5	0	5	0	0	5	5
		Health Education	1	1	2	0	1	1	2
		Orthotics/Prosthetics	37	0	37	17	0	20	37
		Physician Assistant Studies	60	0	60	60	0	0	60
		Public Health	5	20	25	0	1	24	25
		Sport Management	16	15	31	6	3	22	31
	School of Hlth Prom/Human Perf Total		139	43	182	95	8	79	182
	School of Nursing	Adlt-Gert Primary Nur Post-BSN	11	19	30	23	1	6	30
		Clinical Research Nursing	0	1	1	0	1	0	1
		Nursing Education	0	15	15	0	12	3	15
		Nursing Practice - Post MSN	0	3	3	0	0	3	3
	School of Nursing Total		11	38	49	23	14	12	49
	School of Social Work	Family & Children's Services	0	6	6	3	0	3	6
		Mental Health & Chemical Dep	1	7	8	4	2	2	8
		Services to the Aging	0	1	1	1	0	0	1
		Social Work	12	115	127	60	1	66	127
	School of Social Work Total		13	129	142	68	3	71	142
College of Health & Human Serv Total			256	260	516	268	54	194	516
Grand Total			787	1644	2431	898	961	572	2431