FERRIS STATE UNIVERSITY

FERRIS FORWARD

Five-Year Capital Outlay Plan
FY 2022 – FY 2026

October 2020

Ferris State University

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I. Mission Statement

Ferris State University prepares students for successful careers, responsible citizenship, and lifelong learning. Through its many partnerships and its career-oriented, broad-based education, Ferris serves our rapidly changing global economy and society.

II. Instructional Programming

a) Ferris' Academic Plan describes academic program planning, including distance education, at the University. Ferris intends to pursue growth with online graduate level programs, such as the Doctorate in Nursing Practice, which was approved by the Higher Learning Commission (HLC) on October 31, 2016 – and began offering classes in August, 2017. We are continuing the work started as part of former Governor Snyder's Marshall Plan by developing a certificate in cloud computing and an Associate of Applied Science in Cloud Computing. Building on our work in Information Security and Intelligence, a Bachelor of Science degree in Artificial Intelligence is in development. With existing degrees in Digital Animation and Game Design and Digital Media, a bachelor degree in Professional ESports Productions is in process. A Bachelor's degree in Economics and certificates in Salesforce and Technical Sales are also being developed. A Bachelor's degree in Social Justice is slated to begin in Fall 2021, contingent upon Board of Trustees approval.

b) Unique characteristics of Ferris State University include the institution's focus on career-oriented, technical and professional programming. With the merger of Kendall College of Art and Design, Ferris houses the largest individual colleges of design and technology in the region. Ferris also serves a statewide function that shares expertise in the areas of career decision-making and workforce development. Ferris' statewide commitment is evidenced by partnerships developed with the Grand Rapids Public Schools and Southwest Community High School, in addition to the College of Pharmacy's presence in Grand Rapids and Kalamazoo. In terms of external support for these programs, several recent, significant grant awards provide support for this work (i.e. USDA Dual Enrollment STEM grant (660,000); $1M grant award from the US Dept. of Health and Human Services (Health Resources Administration), and $345k grant from NIH grant (for cancer research).

Ferris also partners with twenty-three community colleges across Michigan and utilizes their college facilities to provide bachelor degree-level instruction to students who are place-bound, to enable them to continue their education without relocating to Big Rapids. These programs offer an attractive educational option to working adults looking to increase career prospects or to transition into a new field.

Ferris offers programs ranging from certificate and associate degrees, through first professional and doctoral degrees. In addition to Ferris' extensive bachelor, graduate and professional programs, Ferris serves a community college function for its five-county area through participation in Federal Perkins programming, the State Tuition Incentive Program, as well as through numerous workforce-related curricular offerings.

c) Initiatives which may impact facilities usage:
– *Professional ESports Productions*
With development of the Professional E-Sports Production, Bachelor of Science (BS) degree in the School of Digital Media, state-of-the-art production facilities will be needed. This need is incorporated in Ferris' capital outlay proposal for the construction of the Center for Virtual Learning. This proposal previously received planning authorization from the state. Planning for this facility is complete and the legislature has recommended construction authorization. Due to the Covid-19 pandemic, Ferris has yet to receive legislative approval, which presents additional challenges. As the pandemic eases, the University looks forward to funding approval so this much needed project can move forward.

– *Social Justice*
The philosophy behind the development of the Social Justice, Bachelor of Science (BS) degree program is to provide an opportunity for students interested in learning about social differences within our society, the causes and consequences of social injustice and inequality, and ways in which they can connect their knowledge and competencies to effect change. This interdisciplinary degree, with module courses housed in the College of Arts and Sciences, College of Business, and the College of Health Professions-- will prepare graduates to work in a variety of fields--including business, law, health advocacy and health care, education, government, human services, social advocacy, criminal justice, and the non-profit sector. The internship experiences required by the Social Justice degree program, include faculty oversight and experiential learning that serves to prepare students to work in their chosen field(s). Students can also choose to work with a variety of non-profit institutions including, but not limited to, governmental agencies (city, county, state or U.S.), and/or Ferris' Big Rapids-based Jim Crow Museum and the Museum of Sexist Objects.

– *Digital Media*
Digital Media (DM) includes Ferris' Digital Animation and Game Design program, which is ranked among the top 20 programs in the country by the Princeton Review. DM also includes programs in Digital Media & Software Engineering, and Television & Digital Media Production. Numerous Ferris alumni work in businesses, industry and virtual design studios, television stations, educational institutions, and firms specializing in virtual, electronic and video representation. The DM program brings together studies in digital video, digital animation and game design, and software engineering. The exponential growth of YouTube and other online video sites highlights the relevance of Ferris' Digital Media program. This program will be housed in the Center for Virtual Leaning referenced above and is in much need of this state-of-the-art facility.

– *Artificial Intelligence*
A bachelor degree in Artificial Intelligence degree is currently in process. The proposed degree heavily leverages existing Information Security & Intelligence (ISI) and Data Analytics (STQM) courses, and will require eight new courses in Artificial Intelligence. The degree will be more data-science focused and will lightly utilize the College of Business core courses. A target implementation date has been set for Fall 2021. This program will also be housed in the Center for Virtual Learning.

– *Virtual Learning*
Ferris offers charter schools, teacher education, and a doctorate in community college leadership. There remains a strong need to embed virtual learning within each of these fields in both the delivery and preparation of program content. This will require a significant update to facilities and development of new classrooms and learning laboratories which enable and leverage technology.

Ferris has a strong and growing online presence. Ferris currently offers 36 degrees and certificates entirely online. These degrees provide flexibility for the non-traditional student market in search of higher education credentialing and career advancement. The online programming also expands the reach of the Ferris brand, while extending educational opportunities to a larger, more diverse audience throughout the state. Education and online programs will be housed in the proposed Virtual Learning Center.

Ferris' recent return to campus during Fall Semester 2020, complies with local, state and federal guidelines to ensure the health and safety of students, faculty and staff. Alternative methods of delivering academic instruction have complemented Ferris' ability to provide as many face-to-face opportunities as possible during the COVID 19 pandemic. The three modes of delivery currently offered include: traditional Face-to-Face instruction, where lectures and laboratory learning are delivered in-person, though some classes may have portions of the content offered through alternative means; HyFlex, where delivery of instruction takes place on specific days and times, with the instructor and student arranging their face-to-face and/or remote sessions; and Online, where the instructor might specify synchronous, or scheduled days and times for the remote class sessions, or asynchronous, where students pursue their classwork remotely and arrange all necessary interaction with their instructor.

– *Career and Technical Education*
For many years Ferris State University has been a leader in the state for Career and Technical Education programs. Workforce demands drive a strong need to expand upon these programs, connecting them with technical education programs at the community college, tech center and secondary levels. Within Michigan there also exists a strong need for leadership to promote this kind of education to help fill existing and future job opportunities with skilled workers. This aligns with the current state initiatives that focus on promoting technical and apprenticeship education in the state. Ferris has also undertaken to develop two new certificates that meet current and future workforce needs: Marketing and Sales Leadership, and Salesforce programming. This program will also be housed in the proposed Center for Virtual Learning.

– *Information Security and Intelligence (ISI)*
The Information Security & Intelligence program (ISI), which is annually ranked among the top 25 programs in the nation, distinguishes itself as the premier program in the state and one of only six programs in the country designated as a Center of Excellence by the National Security Agency in all information assurance areas. Additionally, the program holds the National Center for Digital Forensic Academic Excellence designation from the Department of Defense Cyber Command Center (DC3) and the Air Force Office of Special Investigations. ISI represents the first university program in the country to receive DC3 and Air Force Office of Special

Investigations Center designation as a National Center of Digital Forensics Academic Excellence. As such, Ferris' ISI program facilitates national-level security expertise in business, industry and government operations. Cyber security and data analytics are frequently cited among the fastest-growing career fields. Information Security and Intelligence has significant facility needs and is included in the Center for Virtual Learning project.

- *Master of Science in Social Work*
  Ferris created a Master of Science degree in Social Work in 2014, and is currently hosting its sixth cohort of students. Additionally, a School Social Work Certificate began with the Fall, 2019 class. Additional space needs have arisen for classroom and faculty offices.

- *Scientific and Pharmaceutical Research*
  Ferris continues as a national leader in providing career training to students in a variety of fields. Students in the sciences and pharmacy have impactful research experiences with faculty solving real-world problems (e.g., microbial resistance). Faculty and students have received National Institutes of Health (NIH) grants and National Science Foundation (NSF) grants to fund their research. The teacher-scholar model has been adopted in the College of Pharmacy with increased research efforts in several programs and colleges. The following needs are associated with continuation of this work:

  1. Emergency power back-up for the Science Building and the Hagerman Pharmacy building laboratories as well as the animal care facilities
  2. Alarm systems for the Science Lab walk-in refrigeration unit and the sub-zero refrigeration unit, and renovation of laboratory spaces in the Science and Pharmacy Buildings to accommodate cutting-edge interdisciplinary research with students
  3. Modernization of research laboratory facilities across campus with emphasis in colleges with substantial research efforts

- *Development of University-Wide Initiatives*
  As part of the University's regional reaccreditation visit by the Higher Learning Commission on October 5 and 6, 2020, the colleges and other academic affairs units developed and are implementing quality initiative projects to address learning, retention, and the learning environment. The primary goal of the quality initiative is to create an increasingly effective Ferris environment focused on holistic student development, innovative pedagogy, and commitment to student success in all areas of literacy in support of their capabilities to be effective. These in turn will lead to more learning, higher completion, and higher satisfaction with the learning environment. At the center of these efforts is the Center for Academic Literacies that has been developed in the University's FLITE library. These projects are underway, and results were reported to HLC in the spring of 2020, in advance of the reaffirmation of accreditation visit.

d) Economic development impact of current/future programs:
  - As a career-oriented University, Ferris serves as a major driver of the economy in West Michigan and throughout the State. Each of the technical programs previously mentioned represents areas of present and future economic growth. Ferris' hands-on engineering programs: architecture and facilities management; automotive

technology; CAD drafting and tool design; computer networks and systems; construction management; electrical\electronics technology; heating, ventilation, air conditioning and refrigeration; heavy equipment technology; industrial technology and management; manufacturing; mechanical technology; plastics; product design technology; quality technology; rubber engineering technology; surveying; welding engineering technology provide technical fields for new professionals, and opportunities for retraining and upskilling for current professionals.
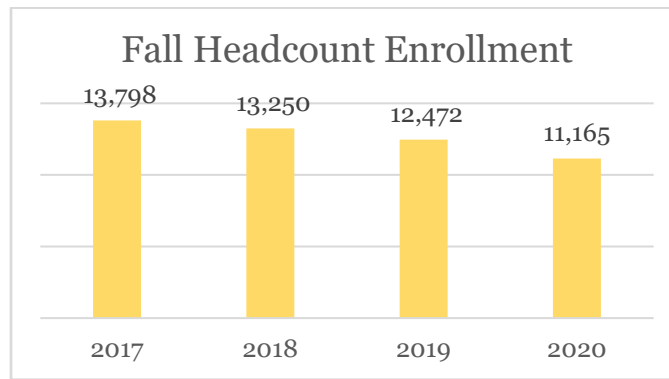– Ferris' educational leadership in charter schools, teacher preparation, and a doctorate in community college leadership continue to provide the resources needed to develop the educated workforce for a knowledge-based, technological economy.
– Programs in health professions provide numerous opportunities for employment and support the growing field of healthcare. In the last four years, the University has started master's level programs in Health Administration and also Public Health. In addition to professional doctoral programs in Pharmacy and Optometry, Ferris launched a Doctorate in Nursing Practice in August 2017.
– The Ferris State University process of Academic Program review and new academic program development is a national leader in best practice. Ferris faculty are committed to developing new programs to support developing trends and needs. The nimbleness of these academic initiatives created more than 25 new academic programs in the past six years. At the same time, an equal or greater number of academic programs has been eliminated.

III. Staffing and Enrollment

a) Ferris' academic mission - to provide hands-on career-oriented instruction that meets the business and industry needs of our State - continues to attract students to our institution. While recent enrollment at the University reflects the impact of declining high school graduates, the institution remains confident that Ferris' programs will continue to attract new freshmen, transfer students, and adult learners.

Ferris continues to attract students to the Big Rapids campus for hands-on, career-focused instruction that requires specialized equipment and face-to-face instruction. The University provides bachelor degree completion programming to place-bound students throughout the State by leveraging strong partnerships with community colleges, while offering upper level program opportunities to students in the communities where they live. Ferris utilizes the facilities of community college partners to offer bachelor degree programming to community college students who have earned associate degrees through partner community colleges. These relationships continue to expand and include a growing network of high school partnerships, notably with the Grand Rapids Public Schools and the Rockford Public Schools. At the same time, Ferris continues to increase online offerings to provide alternative instruction opportunities to students where this method of instructional delivery has become more attractive, especially during the pandemic. Specific enrollment information by program and site can be found online at: Fact Books. Access to this link can be found on the Ferris home page, by typing Fact Books in the search engine.

b) Since 2016 Ferris has experienced a decline in enrollment due to the decrease of Michigan high school graduates and the recent Covid-19 pandemic. However, between spring 2020 and the beginning of fall semester 2020, increased emphasis on retention has yielded a slight (2%) increase in retention of continuing students.

Fall Headcount Enrollment

2017	2018	2019	2020
13,798	13,250	12,472	11,165

c) Ferris has experienced a Fall 2020 enrollment decline of slightly less than 9% due to the Covid-19 pandemic and declining Michigan high school graduates. The University continues to address this through a strategic plan (2019-2024), as well as with a new branding and marketing campaign. Specifically, Ferris has engaged the following initiatives: expanding our online offerings, increasing our athletic rosters, developing an e-sports program, and expanding our relationships with community colleges. In addition, a Wintermester is now offered (began December 2018) where students can take online classes between fall and spring semester (over the December/January break).

d) Depending upon the academic program area, student-to-faculty ratios will vary based upon whether the course is offered as a hands-on, equipment dependent laboratory, or a general lecture class. The 2019-2020 University student-to-faculty ratio of 16 to 1 indicates that classroom space continues to present major planning challenges for the University. This is due to our unique programming mix requiring small class sizes dictated by the equipment-intensive nature of many of Ferris programs. Total University student-to-employee ratio has remained a ratio of approximately seven to one over the last few years.

e) Staffing levels have declined as a result of enrollment change and budget reductions. Ferris' operating strategy has focused on reducing budgets to balance revenues and expenses. For example, Ferris recently (2019-2020) reduced the base budget by $20 Million, with more than $11 Million of these cuts coming from Academic Affairs.

f) Current average class size for fall of 2020 is 16.6 students per class. Again, this small class size reflects the University's mission of providing hands-on education.

IV. Facility Assessments

a) Ferris completed an update to the facility Master Plan in May 2015. It was the University's intent to update the facility Master Plan in 2020; however, this process was suspended in March due to the COVID pandemic. It is the University's intent to restart this initiative in early 2021 with the goal to complete by the end of the academic year. In addition, an updated Facility Condition Assessment Report was completed in May 2018 and may be found on the Physical Plant's page under Planning Documents.

b) Ferris' classrooms are highly utilized. The unique programming requirements of our curricula make cross-utilization of some facilities challenging. Many hands-on laboratories

(automotive, welding, HVAC, etc.) are specifically designed with the special equipment these disciplines require.

c) The University believes all special laboratory and specialty classrooms conform to federal/industry standards and hired a Director of Laboratory Safety to ensure safe practices and compliance in classroom and research laboratories.

d) The functionality of existing structures is addressed in the Master Plan document.

e) The replacement value of existing facilities is detailed in the Current Facilities Property Value report. A copy of this report is available on Ferris' website by going to the transparency reporting button located near the bottom of Ferris' homepage, clicking information located on the left, and going to Current Facilities Property Value 2019/2020.

f) The University completed a comprehensive assessment of underground sanitation and waste water system during 2016 as part of the Michigan DEQ SAW Grant Program. A copy of this report is available upon request.

g) In most cases the most up-to-date information on facility infrastructure is detailed in the 2005 Utility Infrastructure Study which is available through hard copy in multiple three-ring binders. Some of this information is also available on the Physical Plant's GIS System.

h) Existing utilities and infrastructure systems are sufficient and adequate to support the five-year Master Plan.

i) Ferris approved an Energy and Water Use Policy June 2012. The policy can be found on Ferris' website under the Business Policies>Facilities page.

j) The Master Plan document also provides detail as to land use and capacity.

k) Detail on the bonded indebtedness of our facilities is included in the financial statements.

V.   Implementation Plan

The Master Plan document comments on specific needs of the various facilities.

a) Ferris' top priority for capital projects is noted below:

Priority One: *Center for Virtual Learning*

The Center for Virtual Learning received planning authorization in 2018. The University has now completed necessary planning for this facility and seeks funding to begin construction of this much needed, state-of-the-art, high-tech building. It is especially important and fiscally prudent for the State to take advantage of the current historic low interest rates and provide final authorization for this project. Ferris very much seeks and appreciates state support for this initiative.

b) The backlog of current deferred maintenance projects is included in the 2018 campus Facility Condition Assessment report. The report is located on Ferris' website on the Physical Plant's page under Planning Documents. The University maintains a

comprehensive facilities assessment database that identifies the deferred maintenance costs for each building.

c) Ferris continues to expect significant return on planned capital expenditures.

d) Ferris continues to upgrade its technology infrastructure. This includes conventional network infrastructure, wireless capacity, and capacity for additional online learning.

e) Ferris currently offers 12 bachelor, 6 master, and 1 doctoral program—along with 18 certificates online. For fall 2020, the count of students enrolled in programs presented entirely online totals 3,394. Many courses at Ferris are presented in a hybrid format, which requires some attendance on campus, with most of the work completed online. Ferris plans to accommodate growth in online offerings which will continue to evolve. The proposed Center for Virtual Learning remains a critical component of this online future. However, in doing so, we also recognize that hands-on instruction in some career-oriented academic disciplines is not suited to distance learning technologies at this time.

f) Ferris major maintenance items in excess of $1 million include (but are not limited to):
   – Automotive Technology Center. This facility was constructed in 1956 and requires a major renovation to keep pace with the electrical and digital nature of the profession. The University funded and completed Phase 1 of a $1.5 million investment three years ago for South Wing improvements to faculty offices, classroom enhancements, and a modern fuels lab.
   – Center for Athletics Performance. Fundraising is underway for a $9.0 million addition to and partial renovation of our Sports Complex. The strength and conditioning space in the Sports Complex is undersized and underequipped, and in many cases is less than our student athletes used in high school. This project also includes an expanded women's volleyball arena and renovation to outdated locker room facilities.
   – Hagerman Pharmacy Building. This building was constructed in 1972. Phase 1 renovations were completed in Fall 2019. A second phase, supported by a capital fundraising campaign, is planned for 2021.
   – Information Technology. Information technology is primarily located in the West Building, a structure completed in 1952, which has a facility condition index of 72.1%, the second poorest on the Big Rapids campus. Current plans are to construct a new building of 18,500 sq. ft. and to raze the current building. Estimated cost for this project is $7 million with construction to begin during 2021.
   – Kendal HVACR. The Kendall College of Art Design Fountain Street Building in Grand Rapids consists of two structures that have been combined together. One half of this building uses a refrigerant, R22, that will be phased out in 2020 because of environmental concerns. This requires a complete replacement of the HVACR and associated systems. The estimated cost for this project is $4.1 million and the intent is to complete renovation in 2021.

g) Ferris is in its fourth of a five-year (FY18-FY22) capital renewal and deferred maintenance plan and has approved funding for the first three years to date. Annual funding includes $1,800,000 annual general fund support and $700,000 annual housing and dining funds, for a planned combined total over five years of $12,500,000.