



**FERRIS STATE  
UNIVERSITY**

**Five-Year Capital Outlay Plan**

**FY 2018 - FY 2022**

September 2016

# Five-Year Capital Outlay Plan

## Ferris State University

FY 2018 – FY 2022

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**FERRIS STATE UNIVERSITY**  
**Five-Year Capital Outlay Plan**  
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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 is provided in response to this item at <http://www.ferris.edu/HTMLS/administration/academicaffairs/Initiatives/index.htm>. That plan describes academic program planning, including distance education, at the University. Ferris intends to pursue growth with our online graduate level programs including a new Doctorate in Nursing Practice the fall of 2018.
- b) Unique characteristics of Ferris State University include its focus on career-oriented, technical and professional programming. With the merger of Kendall College of Art and Design, Ferris has the largest college of design and technology in the region. Ferris is also serving a statewide function to share expertise in the areas of career decision-making and workforce development.

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

- c) Initiatives which may impact facilities usage:
  - Digital Forensics  
Ferris is a national leader in information security and intelligence and in preparation of criminal justice professionals. There is a strong need to grow these two programs together to prepare students for the growing field of digital forensics. A variety of laboratory and digital facilities are needed to support this growing area.
  - Virtual Learning  
Ferris offers charter schools, teacher education, and a doctorate in community college leadership. There is a strong need to embed virtual learning within each of these fields both in the delivery and preparation. This will require a significant update to education facilities and development of new classrooms which take advantage of this technology.

- Digital Media  
The continued growth and demand for video technology are creating space needs for programs in Television and Digital Media Production. The hands-on nature of this program requires additional laboratory, classroom and equipment space.
- Career and Technical Education  
For many years Ferris State University has been the state leader for career and technical education programs and hosts many of the resources for technical education in Michigan. There is a strong need to enhance this educational component, connecting it with technical education programs at the community college and secondary level.
- Welding Engineering Technology  
The Ferris Welding Program is recognized as one of the finest in the country. Michigan has a critical need for highly educated welders. Presently Ferris' Welding Program is operating at full capacity with a waiting list into fall of 2017. Welding Engineers provide the automation of welding processes and increase efficiency in manufacturing assemblies. Doubling the size of welding facilities will allow Ferris to meet a larger part of this important demand of Michigan manufacturers. This program is currently part of the Swan Annex renovation and expansion approved Capital Outlay funded project that will begin construction fall 2016.
- Advanced Manufacturing  
In West Michigan manufacturing industries are growing and have a critical need for educated workers in the machine tool and die industry. The future of Michigan's manufacturing industry will require improved "design to build" capacity, automation, quicker process change-overs and exploration into new technologies such as 3D production printing. A significant update to Ferris advanced manufacturing capacity is needed to help grow the economy of West Michigan and beyond. This program is also currently part of the Swan Annex renovation and expansion approved Capital Outlay funded project that will begin construction fall 2016.
- Automotive  
In the automotive industry there is a strong need for career pathways for automotive service technicians, supervisors and managers that help connect the associate degree with the bachelor's degree. Ferris is in the midst of a significant revision of its automotive curriculum to connect with this industry and provide the type of laboratory experiences needed to support a hybrid program of both in-person and online instruction. As an example, Automotive Management, a dealership management program, is now available entirely online. The program is currently pursuing a Michigan-wide market and a nationwide market in the future.
- Master of Science in Social Work  
Ferris has created a Master's Degree in Social Work and is working with its second cohort of students. Additional space is needed for classes and faculty offices.

d) Economic development impact of current/future programs:

- As a career-oriented University, Ferris is a major driver of the economy in West Michigan and throughout the state. Each of the technical programs above represents areas of present and future economic growth.
- Ferris' hands-on engineering programs, including 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; surveying; and welding provide new professionals to technical fields but will also provide retraining and upgrades for current professionals.
- Ferris' educational leadership in charter schools, teacher preparation, and a doctorate in community college leadership continues 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 health care. In the last three years, the University has started master's level programs in Health Administration Leadership and Public Health. In addition to professional doctoral programs in Pharmacy and Optometry, Ferris will launch a new Doctorate in Nursing Practice in fall 2018.
- 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 twenty-five new academic programs in the past five years. At the same time, an equal or greater number of academic programs have been eliminated.

e) Development of College-Wide Quality Initiatives

For 2016-17, each college will develop a Quality Initiative Plan that deals with one or more of the following themes: learning, degree completion, climate. The overarching goal of this program is for each college to create learning environments that foster students' personal and cognitive growth in ways that lead to higher rates of degree completion. Plans will be completed fall 2016, implemented in Spring 2017, and carried forward for two years. Results from analysis of these initiatives will be reported to the HLC during its 2020 reaccreditation visit.

### III. Staffing and Enrollment

- a) Through the period from 2000 through 2010, Ferris State University experienced steady enrollment growth that was among the highest of Michigan's 15 public universities. Over the last five years, despite the substantial decline in the numbers of high school graduates, in Michigan in particular and throughout the Midwest more generally, headcount and full-time equivalent numbers have remained steady. From 2011 through 2015, the headcount increased by about 200 students, and FTE equivalent has been unchanged. Over the past 15 years, the number of degrees conferred to graduates has increased by 41 percent. That growth has occurred at all campus locations, on- and off-campus. Ferris continues to attract students to the Big Rapids campus for the hands-on, career focused instruction that requires specialized equipment and face-to-face instruction. The University provides bachelor degree completion to place-bound students throughout the State through strong partnerships with community colleges, offering upper level program opportunities to students in the communities where they live. In this we utilize the facilities of the community college and ladder a bachelor's degree on top of the associates' degrees offered at the site. At the same time, Ferris continues to increase its online offerings to provide instruction to students on their schedule where those offerings are appropriate for this delivery method. Specific enrollment information by program and site can be found in our online Fact Book found at:  
<http://www.ferris.edu/HTMLS/admission/testing/factbook/FactBook15-16-2.pdf>
- b) Ferris anticipates ongoing demand for its career-focused programs. Academic planning supports continued modest enrollment growth over the next five years. This will result from a combination of new freshman and transfer students and from improved retention and success rates for continuing students.
- c) Staffing ratios are available through the HEIDI database.
- d) Depending upon academic program area, student-to-faculty ratios will vary based upon whether the course is a hands-on, equipment dependent laboratory, or a general lecture class. The 2015-2016 University student-to-faculty ratio of 16 to 1 indicates that classroom space is a major planning factor for the University due to our unique programming mix requiring small class sizes dictated by the equipment-intensive nature of many of our programs.
- e) Current average class size for fall of 2016 was 16 students per class. Again, this small class size reflects the University's mission of providing hands-on education.

#### IV. Facility Assessments

Ferris completed an update to the facility Master Plan in May 2015. A copy is available at <http://www.ferris.edu/strategic-planning2/2015-master-plan-final.pdf>

- a) A Facility Condition Assessment Report was updated in 2010. A further update to the report is in progress with planned completion within the year.
- 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 that all special laboratory and specialty classrooms conform to federal/industry standards and has hired a Lab Safety Coordinator to ensure safe practices and compliance in our classroom 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' web site by going to the *transparency reporting* button located on the bottom of Ferris' home page and then clicking *information* located on the right.
- f) The most recent documentation on the condition of physical plant systems is detailed in the 2010 Facility Condition Assessment.
- g) The most up-to-date information we have 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 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. This is available at <http://www.ferris.edu/HTMLS/administration/buspolletter/facilities/Energy-Water-Use-Policy.pdf>. As part of our current five-year capital renewal and deferred maintenance plan, \$2,500,000 will be used for this plan.
- 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 plant facilities.

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

Priority One:        *Center for Virtual Learning*

- b) The backlog of current deferred maintenance projects is included in the campus facility condition assessment report. This report is available at <http://www.ferris.edu/HTMLS/administration/adminandfinance/physical/docs/FacilityConditionAssessmentReport2010LimitedScopeUpdate.pdf>. The University maintains a comprehensive facilities assessment database that identifies the deferred maintenance costs for each building. The 2010 report is being updated during 2016-2017.
- c) Ferris continues to expect significant return on planned capital expenditures. As a career-oriented and applied university, Ferris is a major economic driver for West Michigan.
- d) Ferris continues to upgrade its technology infrastructure. This includes conventional network infrastructure, wireless capacity, and capacity for additional online learning. 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. Ferris currently offers 17 degrees and 16 certificates completely online. These include degrees in Allied Health Sciences, Automotive Management, Business Administration, Dental Hygiene, Health Information Management, HVACR Engineering Technology, Integrative Studies, Nursing, ProMoTEd Technical Education, Master of Health Administration Leadership, Master of Public Health, and Doctorate of Nursing Practice. For fall 2016, 980 students are enrolled in programs that are presented entirely online. Additionally many courses at Ferris are presented in a hybrid format which requires some attendance on a campus, but where the majority of the work is completed online. Ferris' plans to accommodate growth in online offerings and continue to evolve.
- e) Ferris major maintenance items in excess of \$1 million including (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 that was made a year ago for the South Wing improvements for faculty offices, classroom enhancements, and a modern fuels lab.
  - Ferris' teacher education and criminal justice programs are currently housed in a former residence hall which is inadequate in both classroom space and technology capacity.
  - Major renovation of Alumni Building. The poor condition of this facility is noted in the Master Plan. (This is the only remaining structure of the original Ferris Institute.)
  - Pharmacy building renovation.
  - Health Professions building renovations.
  - Steam and condensate return lines. The aging underground steam system is 40- 50 years old.
  - Modernization of classrooms across the University to promote active learning and to use technology effectively.
  - \$28.15 million new North Residence Hall under construction with an August 2017 completion date.
  - \$5.2 million Athletic and Intramural Field renovations and East Campus Apartments demolition is nearing completion.
- f) Ferris is currently in a second five-year capital renewal and deferred maintenance plan with \$1,800,000 annual general fund support and \$1,200,000 annual housing and dining funds, for a combined total over five years of \$15,000,000.