FERRIS STATE UNIVERSITY
Five-Year Plan
FY 2017 - FY 2021

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/majorinitiatives.htm That plan describes academic program planning, including distance education, at the University. Ferris intends to pursue growth in our online programs.

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 colleges 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.

Ferris has a Doctorate in Community College Leadership which uniquely serves the needs of community college professionals to prepare educationally for leadership advancement opportunities.

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 State 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 is 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 the 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.
- 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.
- 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 both in-person and on-line. 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 allow 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.

III. Staffing and Enrollment

a) Over the past decade, Ferris State University has been among the fastest growing of Michigan's public universities. Since 2003 our fall headcount enrollment has increased by 24 percent. 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. We provide 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 on-line 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 on-line Fact Book found at:
http://www.ferris.edu/HTMLS/admision/testing/factbook/FactBook14-15.pdf

b) Ferris anticipates ongoing demand for its career focused programs which continue to experience near 90-percent graduate placement rates. 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) Headcount at Ferris over the past five years has increased by 334 (2.3%). Over the past ten years, enrollment has increased over 17 percent.

d) Staffing ratios are available through the HEIDI database.

e) 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 2014-2015 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.

f) Current average class size for fall of 2015 was 17 students per class. Again, this small class size reflects the University 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 condition of physical plant systems is detailed in the Master Plan.

g) The condition of facility infrastructure is also detailed in the Master Plan

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 a new 5 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	*College of Engineering Technology* *Supporting Welding Engineering Technology and Advanced Manufacturing*

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. These costs are updated regularly. The impact of addressing deferred maintenance needs now, rather than continuing to defer them, would result in less deterioration of these facilities.

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 is currently upgrading its technology infrastructure to allow for expanded use of distance learning technologies. 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 14 degrees and 16 certificates completely on-line. These include degrees in Allied Health Sciences, Automotive Management, Business Administration, Dental Hygiene, Health Information Management, HVACR Engineering Technology, Integrative Studies, Nursing, and ProMoTEd Technical Education. For fall 2015, 988 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 on-line. Ferris' plans to accommodate growth in online offerings 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.
- 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 to integrate with the new Optometry facility.
- Allied Health Sciences building renovation to integrate with new Optometry facility.
- Steam and condensate return lines. The aging underground steam system is 25 to 40 years old.
- Modernization of classrooms across the University to promote active learning and to use technology effectively.
- A $33.9 million renovation to the Student Center was completed in December of 2014.

f) Ferris is currently in a second 5 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.