

FERRIS STATE UNIVERSITY
FY 2015 - FY 2019

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. 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:
- 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 2015. 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 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.

- Automotive Technology
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.
- Mechatronics and Medical Instrument Manufacturing
Two new bachelor's degrees have been proposed by the Ferris Academic Incubator to provide Michigan a new competitive advantage in manufacturing. Mechatronics is a mix of mechanical engineering and electronics and will build upon popular associate degrees provided at community colleges across the U.S. Medical Instrument Manufacturing takes advantage of the growth trend in healthcare. The program will enhance the health science industry and seek to apply more plastics technologies to medical instrument manufacturing.
- 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.
- Master's in Social Work
Ferris is creating a master's in social work which will build upon the current efforts of the bachelor's program. This program will require specialized facilities for these professionals.
- Master of Architecture
In Grand Rapids Ferris is building upon the design expertise of Kendall College of Art and Design and bachelors' programs in Big Rapids in architectural technology, construction management, facilities management, and heating, ventilation, and air conditioning to create a master of architecture degree. This program will require specialized facilities and additional space.
- Master's Degrees in Health Informatics and Data Analytics
A consortium of the Colleges of Pharmacy, Health Professions and Optometry, and Extended and International Operations has proposed graduate degrees that utilize the large amounts of data available in health organizations and businesses.

- 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, in Welding Engineering Technology, Advanced Manufacturing, Mechatronics, Medical Instrument Design and Manufacturing, Architectural Technology, Digital Forensics, Data Analytics, Health Informatics and Architecture represent 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 education leadership through charter schools, teacher preparation, and a doctorate in community college leadership continues to provide the resources needed to develop the educated workforce needed for a knowledge-based, technological economy.

III. Staffing and Enrollment

- a) Over the past decade, Ferris State University has been the fastest growing university among Michigan's public universities. Since 2003 our fall headcount enrollment has increased by 23 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/FactBook11-12.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 in the range experienced over the past five years of approximately 2 to 3 percent per year. This will result from a combination of new freshman and transfer students and from improved retention and success rates for continuing students.
- c) Enrollment at Ferris over the past five years has increased by 1,001 students (7-percent).

- d) Staffing ratios are available through the HEIDI database.
- e) Depending upon academic program area, student-to-faculty ratios will vary depending upon whether the course is a hands-on, equipment dependent laboratory, or a general lecture class. The 2012-2013 the 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 2013 was 18 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 March 2009 including facility assessment. A copy is available at

<http://www.ferris.edu/HTMLS/administration/president/planning/facility-masterplans/docs/BRmasterplan09.pdf>

- a) A Facility Condition Assessment Report was updated in 2010. These figures are revised every two years.
- 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 at <http://www.ferris.edu/HTMLS/administration/president/budget-office/FacilityPropertyValues.htm>
- 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' priorities for capital projects are summarized below:

Priority One *College of Engineering Technology
Supporting Welding Engineering Technology, Advanced
Manufacturing, Automotive Technology*

Priority Two *Virtual Learning Center Supporting Digital Forensics,
Virtual Learning, Charter Schools, Teacher Education,
Community College Leadership as well as education,
preparation and support facilities for faculty
university-wide.*

- 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 every two years. The impact of addressing deferred maintenance needs now, rather than continuing to defer them, would result in less deterioration of these facilities.
- c) Ferris completed renovations to the seventh floor of a building at 25 Michigan Avenue in Grand Rapids for use by our Pharmacy program in January 2012. The project was completed on time and on budget.
- d) 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.

- e) 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 12 degrees and 15 certificates completely on-line. These include degrees in Allied Health Sciences, Business Administration, Dental Hygiene, HVACR Engineering Technology, Integrative Studies, Nuclear Medicine Technology and Nursing. For fall 2013, 896 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 is developing a plan to accommodate growth in online offerings.
- f) Ferris major maintenance items in excess of \$1 million including (but are not limited to):
- Automotive Technology center. This facility was constructed in the 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 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 major renovation to the Student Center began in May 2013 with expected completion by December 2014.
- g) Ferris is currently beginning 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.