FERRIS STATE UNIVERSITY

DIGITAL MEDIA SOFTWARE ENGINEERING TRANSFER GUIDE FOR NORTH CENTRAL MICHIGAN COLLEGE

Ferris Program: Digital Media Software Engineering
Degree Type: Bachelor of Science
Ferris College: College of Business
Transfer School: North Central Community College (NCMC)
Consortium Eligible: Yes
Total Credits Required: 126-127
Catalog Year: 2025-2026

GENERAL EDUCATION REQUIREMENTS — *30 Credits Required*

Students are encouraged to work with an advisor to select appropriate general education courses. Diversity Competency - 2 Courses Required. If not met by courses taken for Culture, Self and Society, or MTA, a student must meet the following: 1 course with the Global Diversity attribute and 1 course with the U.S. Diversity attribute.
Visit the Ferris State general education page for more information.

Communication Competency

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
COMM 121	Fundamentals of Public Speaking	3	COM 111
ENGL 150	English 1	3	ENG 111
ENGL 250	English 2	3	ENG 112
ENGL 311 or ENGL 321 or ENGL 325 or TDMP 326	Advanced Technical Writing or Advanced Composition or Advanced Business Writing or Script Writing	3	No Equivalent

Quantitative Literacy Competency

4 Credits Required and is met in College Requirements.

Natural Sciences Competency

Two courses are required with a minimum of 6 credits: must have at least one lab course. Met in College Requirements.

Culture Competency

Three courses are required with a minimum of 9 credits: must be from two different disciplines and have at least one at FSU 200 level or higher course.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
Varies	Culture Electives	9	Varies

Self and Society Competency

Three courses are required with a minimum of 9 credits: must be from two different disciplines and have at least one at FSU 200 level or higher course, and at least one Self and Society Foundation course. ECON 201 or ECON 202 are met in College Requirements.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
Varies	Self and Society Electives	6	Varies

COLLEGE REQUIREMENTS – *99 Credits Required*

Software Development Courses

21 Credits Required.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
SENG 101	Computer Programming 1	3	No Equivalent
SENG 102	Computer Programming 2	3	No Equivalent
SENG 300	Software Data Structures	3	No Equivalent
SENG 301	Programming Languages	3	No Equivalent
SENG 315	Software Component Design	3	No Equivalent
SENG 400	Engineering Enterprise Software Applications	3	No Equivalent
SENG 430	Program Graphical Interfaces	3	No Equivalent

Foundation Courses

18 Credits Required.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
SENG 160	Software Engineering Methodologies and Processes	3	No Equivalent
SENG 170	Software Requirements Management	3	No Equivalent
SENG 210	Software Configuration Management	3	No Equivalent
SENG 250 or ISYS 327	Fundamentals of Operating Systems and Networking or Operating	3	No Equivalent

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
	Systems and Network Essentials		
SENG 302	Software Quality Assurance	3	No Equivalent
SENG 350	Software Design and Architecture	3	No Equivalent

Engineering Fundamentals Courses

6 Credits Required.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
SENG 225 or ISYS 272 or ISIN 325	Introduction to Database Design or Fundamentals of Database Systems or Database Security	3	No Equivalent or CIS 215 or No Equivalent
ECON 201 or ECON 202	Principles of Microeconomics or Principles of Macroeconomics	3	ECO 112 or ECO 111

Mathematics and Sciences Courses

30 Credits Required.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
MATH 220	Analytical Geometry and Calculus 1	4	MATH 150
MATH 230	Analytical Geometry and Calculus 2	4	No Equivalent
MATH 328	Discrete Structures	3	No Equivalent
PHYS 241	General Physics 1	5	PHY 210
STQM 260	Introduction to Statistics	3	STAT 200
Varies	Natural Sciences Elective	1	Varies
Varies	Mathematics or Sciences Electives	10	Varies

Business and Management Courses

3 Credits Required. Choose 1 of 5.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
PROJ 320	Project Management Fundamentals	3	No Equivalent
BLAW 321	Contracts and Sales	3	B 291
BLAW 301	Legal Environment of Business	3	B 290
MKTG 321	Principles of Marketing	3	M 200
PROJ 325	Agile Project Management	3	No Equivalent

Professional Development Courses

9 Credits Required.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
SENG 355 or SENG 420	Software Engineering Tools or Software Development Industry Certification	3	No Equivalent
SENG 491	Software Engineering Applied Internship	3	No Equivalent
SENG 499	Capstone in Software Engineering	3	No Equivalent

APPLICATION DOMAIN ELECTIVES — *12 Credits Required*

Choose one four-course sequence in an area of interest; other than those listed must be approved by an advisor.

Game Design and Development

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
DAGD 100 or DAGD 150	3D Modeling Animation 1 or Introduction to Game Design and Development	3	No Equivalent
DAGD 255	Game Programming 1	3	No Equivalent
DAGD 300	Level Design	3	No Equivalent
DAGD 355	Game Programming 2	3	No Equivalent

Machine Learning Engineering

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
SENG 309	Introduction to Machine Learning	3	No Equivalent

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
SENG 409	Applied Machine Learning Software	3	No Equivalent
SENG 410	Introduction to Big Data Concepts and Tools	3	No Equivalent
SENG 422	Introduction to Cloud Application Development	3	No Equivalent

Directed Electives

12 Credits Required. Choose 4 of the below courses.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
ACCT 201	Principles of Financial Accounting	3	B 211
ACCT 202	Principles of Managerial Accounting	3	B 212
ACCT 241	Computerized Accounting	3	B 113
AIMC 300	Principles of Advertising/ Integrated Marketing Communications	3	M 202
APPS 351	Lean Thinking Production Flow and Plant	3	No Equivalent
ARTI 300	Artificial Intelligence Concepts and Problem Solving	3	No Equivalent
ARTI 330	Natural Language Processing	3	No Equivalent
ARTI 350	Machine Learning	3	No Equivalent
ARTI 380	Special Topics in Artificial Intelligence	3	No Equivalent
CITS 255	Windows Server 1	3	IT 122
CITS 260	Windows Server 2	3	IT 122
CITS 270	Network +	3	IT 101
CITS 280	Linux Administration	3	CIS 140 or CIS 240
CITS 320	Security +	3	IT 222
CPSC 320	Computer Simulation	3	No Equivalent

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
CPSC 330	Parallel Programming	4	No Equivalent
CPSC 340	Computer Organization	4	No Equivalent
DSGN 224	Web Design and Planning	3	No Equivalent
ECNS 125	Networks 2	3	No Equivalent
ECNS 225	Networks 4	3	No Equivalent
ECNS 311	High Level Programming	3	No Equivalent
ECNS 315	Network Theory and Test	4	No Equivalent
ECNS 323	Real Time Operating Systems	4	No Equivalent
EAET 122	Industrial Digital Electronics	4	No Equivalent
EAET 210	Circuits and Systems	3	No Equivalent
EAET 221	Troubleshooting	3	No Equivalent
EAET 216	Non-Linear Electronics 1	3	No Equivalent
EAET 222	Microprocessor Applications	4	No Equivalent
EAET 323	Advanced Automation Controls	4	No Equivalent
EAET 224	Industrial Controls	4	No Equivalent
EAET 325	Data Acquisition and Control	4	No Equivalent
ENGL 411	Professional and Technical Communication	4	No Equivalent
FINC 322	Financial Management 1	3	No Equivalent
INTB 310	International Business Systems	3	B 235
ISIN 300	Link and Visual Analysis	3	No Equivalent
ISIN 306	Security Informatics	3	No Equivalent
ISIN 335	Penetration Testing and Cloud Security	3	No Equivalent
ISIN 380	Current Issues in Information Security and Intelligence	3	No Equivalent
ISIN 409	Network Forensics and Analysis	3	No Equivalent

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
ISYS 288	Web Application Development	3	CIS 145
ISYS 321	Business Information Systems	3	No Equivalent
ISYS 372	Advanced Database Systems Administration	3	No Equivalent
ISYS 431	Systems Analysis and Design 2	3	No Equivalent
MGMT 301	Applied Management	3	B 200
MGMT 310	Small Business Management	3	No Equivalent
MGMT 350	Management Metrics and Decision Making	3	No Equivalent
STQM 270	Introduction to Data Mining	3	No Equivalent
STQM 322	Inferential Statistics	3	No Equivalent
STQM 342	Data Mining Tools	3	No Equivalent
STQM 360	Risk Analysis and Strategy	3	No Equivalent
STQM 375	Programming for Analytics	3	No Equivalent
STQM 385	Visual Data Analytics	3	No Equivalent
STQM 421	Applied Linear Statistical Models	3	No Equivalent
STQM 465	Text and Web Mining	3	No Equivalent
TDMP 132	Digital Media Art and Technology	3	CAP 140
TDMP 328	Online Media Management	3	CAP 210

PROGRAM CONTACT INFORMATION

College of Business
School of Digital Media
(231) 591-2712
SDM@ferris.edu

Ferris Statewide - North Central Michigan College
(231) 995-1734
FerrisNorth@Ferris.edu

Ferris State University

Ferris Online
(231) 591-2340
Online@Ferris.edu

ADMISSION REQUIREMENTS

New Student Admission Requirements

- 2.70 High School GPA (on a 4.00 scale)
- ACT Composite Score of 19

Transfer Student Admission Requirements

- Combined college or university GPA of 2.00 (on a 4.00 scale) from all institutions attended. GPA based on completion of 12 transferable semester credit hours or more.

MORE INFORMATION

Select courses may be delivered online and/or in a mixed delivery format (i.e. a mix of online and face-to-face instruction at the Ferris Main Campus or at a statewide location).

To fulfill the residency requirement for a bachelor's degree a student must earn a minimum of 30 credits from Ferris State University.

Steps to Apply

- Complete your free application.
- Submit official transcripts
  - Submit official transcripts from every school attended to Transfer@Ferris.edu
  - Or mail to:
    Ferris State University Admissions Office
    1201 S. State St., CSS 201
    Big Rapids, MI 49307
- Submit test scores (if required)
  - ACT Scores; go to the ACT website - Ferris State University School Code: 1994
  - SAT, CLEP and AP Sores; go to the College Board website - Ferris State University School Code: 1222

Advising Notes

It is recommended that potential applicants meet with an advisor to review the degree, course schedule, transfer policies and have any questions answered prior to completing an application. Ferris accepts transfer courses in which the student earned a letter grade of "C" or better. Additional policies such as the Ferris Sunset and Residency Requirement should be discussed with a Ferris advisor. Students who are completing the MTA may have different general education course requirements for the particular degree selected.

Meeting with a Ferris advisor prior to the selection of general education or elective coursework may reduce the chance of completing a course that will not apply toward the selected degree. Students must work with their Ferris advisor to declare a Minor or Concentration and for the selection of Directed Electives.

Once admitted, students are required to complete an orientation and should continue to meet with an advisor as they work toward graduation.

To schedule an appointment or for additional transfer resources and policies see our Transfer Resource page.

*Indicates an approved Ferris course substitution

Reverse Transfer Agreement

Ferris has reverse transfer agreements with several Michigan Community Colleges. Under such agreement, Ferris will provide your official University transcript to a partner school you have attended, so that they may grant you an associate or bachelor's degree upon completion of sufficient and appropriate credit hours from both institutions. In turn, the degree-granting institution will provide Ferris with an updated transcript reflecting the newly earned credential.

Michigan Transfer Agreement (MTA)

Ferris participates in the Michigan Transfer Agreement (MTA). This agreement will facilitate the transfer of general education requirements from one Michigan institution to another. Students may complete the MTA as part of a degree program or as a stand-alone package. The MTA consists of a minimum of 30 general education credit hours as identified by the college or university.

Students transferring to Ferris with the Michigan Transfer Agreement (MTA) and entering a degree program will have met a 30-hour block of lower-level general education courses. However, this does not exempt students from completing program-specific prerequisites or higher-level general education course requirements. Students should contact their advisor regarding classes that meet the MTA.

Transfer Equivalencies Tools

The transfer equivalencies link is located in the Transfer Resources section at transfer.ferris.edu.

Disclaimer

Transfer guides are not intended to be a contract with Ferris. The information in this guide is subject to change and is aligned with the catalog year listed above. Students should contact their community college and/or Ferris to keep informed of changes. Students' final responsibility for verifying all transfer information lies with the student. Please refer to the Ferris catalog for the most current curriculum.
Partners may contact the Office of Transfer and Secondary School Partnerships with questions or updates at TransferGuidesArticulations@Ferris.edu.

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