

February 2026
ARTICULATION AGREEMENT GUIDE

Northwestern Michigan College – **A.S.A. Developer**
 Grand Valley State University – **BS in Computer Science**

Northwestern Michigan College Courses:

Grand Valley State University Courses:

Michigan Transfer Agreement (MTA) Requirements (30 credits)

Students with the MTA endorsement on their community college transcript have satisfied GVSU's General Education Foundation Requirements and will be required to complete only the General Education Application Requirements of one US-Diversity cultures course, one Global Perspectives cultures course, two Issues courses, and one writing intensive course beyond the MTA. The cultures courses can be completed at NMC as part of the MTA if selecting from courses in the two subsections below. Courses listed below for the MTA also satisfy program requirements at GVSU and/or NMC. For NMC approved MTA courses go to NMC's website. Students without an MTA or MACRAO endorsement must complete GVSU's general education program.

1. Two courses in English Composition		
Choose two from the approved MTA list.....	8	General Transfer Credit
		8
2. Two courses in Humanities		
PHL 105 or PHL 202.....	3	PHI 103 or PHI 325
Choose one from the approved MTA list not in PHL.....	3-4	General Transfer Credit.....
		3-4
3. One course in Mathematics		
MTH 131 Intro to Probability and Statistics	3	STA 215.....
		3
4. Two courses in Natural Science from different disciplines (one must include a lecture/lab)		
(BIO 115 and BIO 115L) OR (BIO 106 and BIO 106 L).....	4	BIO 120 or BMS 202.....
(CHM 150 and CHM 150L and CHM 150R)) OR		(CHM 126 and CHM 126) OR
(ENV 111 and ENV 111L) OR (PHY 121 and PHY 121L) OR		GEO 111 OR PHY 220 OR
(PHY 221 and PHY 221L and PHY 221R)	4-5	PHY 230
		4-5
5. Two courses in Social Sciences from different disciplines		
Choose two from the approved MTA list	6	General Transfer Credit.....
		6

If needed, complete additional credits in any of the above categories to meet the 30 credit minimum for the MTA.

GVSU's Cultures Requirement: One course in US-Diversity and one course in Global Perspectives

US-Div - Complete one course from the following list:

These courses also satisfy an MTA area: Humanities: HST 111, 112, 211, 225, MUS 111, **Social Sciences:** GEO 108, SOC 201, 211, 220, 260

GP - Complete one course from the following list:

These courses also satisfy an MTA area: Humanities: ART 111, 112, HST 101, 102, 228, HUM 116, ENG 241, 263, 271, **Social Sciences:** ANT 113, GEO 109, PLS 132, 211, PHL 121, SPN 202

NMC Program Requirements (45 credits)	GVSU Program Requirements (45 credits)
* CIT 110: Programming Logic and Design.....	CIS 162 Computer Science I
3	3
* CIT 195: Application Development + CIT 255: OO Program.....	CIS 163 Computer Science II + CIS General Credit... ..
6	4+2
* CIT 280: Systems Analysis and Design.....	CIS 350: Software Engineering.....
4	3+1
* CIT 190: JavaScript Programming + CIT 218: Web Application Development	CIS 371 Web Applications Dev AND CIS Gen Credit
6	3 + 3
* CIT 178: Relational Databases + CIT 228: Advanced Database systems.....	CIS 353: Database
3	3
CIT 263: Cybersecurity Penetration Testing.....	CIS 453: Ethical Hacking.....
3	3
* CIT 131: Game Development and Design	CIS 376: Game Programming Techniques and Alg
3	3
* CIT 290: CIT Internship	CIS 490: Internship
3	3
* COM 111 Public Speaking	COM 201 Speech
4	3 + 1
* MTH 141: Calculus I	MTH 201: Calculus I
5	4 + 1
* MTH 142: Calculus II	MTH 202: Calculus II
5	4 + 1

Credits at NMC:75 Credits that transfer to GVSU 75

* Required for GVSU's BS in Computer Science program. If not transferred, must be completed at GVSU.

ARTICULATION AGREEMENT GUIDENorthwestern Michigan College – **A.S.A. Developer**Grand Valley State University – **BS in Computer Science****Completion of the BS in Computer Science**

- Students must maintain a minimum GVSU GPA of 2.0

Degree Requirements (42 credits)**Credits at GVSU 45****Transfer Credits 75****Program Requirements (33 credits)**

- CIS 241 System-level Programming and Utilities (3 credits)
 CIS 263 Data Structures and Algorithms (3 credits)
 CIS 290 Professional Responsibilities and Practices (3 credits)
 CIS 343 Structure of Programming Languages (3 credits)
 CIS 351 Computer Organization (3 credits)
 CIS 452 Operating Systems Concepts (3 credits)
 CIS 457 Data Communications (3 credits)
 CIS 467 Computer Science Project (3 credits) (Capstone course)
 MTH 225 Discrete Structures: Computer Science (3 credits)
 MTH 325 Discrete Structures: Computer Science 2 (3 credits)
 WRT 350 Business Communication (3 credits)

Elective Course (3 credits)

Choose one elective course from the following.

- CIS 335 Data Mining (3 credits)
 CIS 357 Mobile Application Development (3 credits)
 CIS 360 Information Management and Science (3 credits)
 AI 201 Introduction to Artificial Intelligence (3 credits)
 CIS 367 Computer Graphics (3 credits)
 HCC 304 Usability Design and Evaluation (3 credits)
 CIS 373 Pervasive Computing (3 credits)
 CIS 375 Wireless Networks and Security (3 credits)
 CIS 378 Applied Machine Learning (3 credits)
 CIS 418 Secure Software Engineering (3 credits)
 CIS 430 Computer and Cyber Forensics (3 credits)
 CIS 443 Software Development Tools (3 credits)
 CIS 451 Computer Architecture (3 credits)
 CIS 455 Applied Cryptography (3 credits)
 CIS 458 System Security (3 credits)
 CIS 461 Compiler Design and Construction (3 credits)
 CIS 465 Automata and Theory of Computation (3 credits)

Issues Courses (6 credits)

Choose two courses from the list of issues in the general education catalog.

Free Electives (3 credits)

Choose one extra course to meet the 120-credit requirement for graduation.

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Additional Information:

1. Each institution will determine the satisfaction of their individual program and degree requirements. Both institutions agree to accept transferable courses from each other and from other regionally accredited institutions. NMC courses indicated with an * are required for GVSU's BS in Computer Science. Substitutions for these courses must be approved by the GVSU department chair.
Students with the MTA endorsement on their community college transcript have satisfied GVSU's General Education Core Requirements and will be required to complete only the General Education Application Requirements of one US-Diversity cultures course, one Global Perspectives cultures course, two Issues courses, and one writing intensive course beyond the MTA. The cultures courses can be completed at NMC as part of the MTA if selecting from the two subsection courses noted above on page 1 of the agreement.
2. *To use the Michigan Transfer Agreement (MTA), students must have an official community college transcript, with the "MTA Satisfied" endorsement sent to GVSU's Admissions Office. Students who do not have "MTA Satisfied" on their community college transcript, will be required to satisfy GVSU's general education requirements as applied to transfer students. The MTA may be completed after admission to GVSU, however, students should inform their advisors or they may be advised to complete additional courses for the general education program.*
3. Only courses with a grade of "C" or better (2.0 on a 4.0 scale) will be accepted for transfer to either institution.
4. Under this agreement, GVSU will waive the 58-hour rule and require that a minimum of 48 credit hours must be completed in GVSU courses, with at least 45 hours in the program at the 300-level or above. Of the last 30 hours completed before graduating, a minimum of 10 credit hours must be in courses offered by GVSU. A minimum of 120 credit hours, completed in-residence or accepted in transfer, is required for graduation.
5. Students must satisfy all admission requirements at the time of application for admission to GVSU, including submitting transcripts from all previously attended colleges. NMC students will receive equal consideration with other students for course registration and financial aid.
6. Graduation Requirements:
 - Students must maintain a minimum cumulative GVSU GPA of 2.0
7. Students are encouraged to contact GVSU's Undergraduate Admissions before applying to GVSU. To facilitate advising and the evaluation of transcripts, bring a copy of this articulation guide to all advising sessions.

Effective Date: September 1, 2026 until August 31, 2029.

This agreement guide is consistent with the 2025-2026 catalog. Students have until summer 2033 to graduate from Grand Valley State University following this agreement guide. In the event that a student does not complete the program within eight years, they may be required to have their credits reevaluated using the requirements of the current articulation guide.


Signatories:

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Computer Information Technology
Program Coordinator


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Dean, College of Computing

Jennifer Drake, Ph.D.
Provost and Executive VP
for Academic Affairs

Northwestern Michigan College

Signed by:

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Grand Valley State University

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Grand Valley State University

Signed by:

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Signatories (cont'd):

Stephen Siciliano
Vice President for Educational Services

Northwestern Michigan College

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Admissions and Student Services
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Grand Valley State University
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Allendale, MI 49401
