ARTICULATION AGREEMENT GUIDE

Washtenaw Community College – **AS in Computer Science: Programming in Java**
Eastern Michigan University - **BS in Computer Science Curriculum**

Washtenaw Community College Courses:	**Eastern Michigan University Courses:**

Michigan Transfer Agreement (MTA) Requirements (31-33 credits)

Students with the MTA endorsement on their community college transcript have satisfied EMU's General Education Core Requirements and will be required to complete only the General Education Application Requirements of one Perspectives on a Diverse World course, one Learning Beyond the Classroom experience, and a Writing Intensive course in the major. Courses listed below for the MTA also satisfy program requirements at EMU and/or WCC. For WCC approved MTA courses go to WCC's website. Students without an MTA or MACRAO endorsement must complete EMU's general education program.

1. A Course in English Composition
ENG 111 Composition I........................4 | WRTG 121 Composition II (3)+1 4

2. A Course in English Composition or Communication
Choose one from the approved MTA list........................3 | General Transfer Credit 3

3. A Course in Mathematics
* MTH 191 Calculus I........................5 | MATH 120   Calculus I (4) +1 5

4. Two courses in Natural Sciences from different disciplines (one lab required)
*Complete the first course in a science sequence:........................4-5 | First course of required science sequence:........................4-5
   BIO 162, CEM 111, or PHY 211 | BIO 110/111, CHEM 121/122, or PHY 223
Completion a course from the approved MTA list ....3-4 | `General Transfer Credit........................3-4

5. Two courses in Humanities from different disciplines
Choose two from the approved MTA list ....6 | General Transfer Credit........................6

6. Two courses in Social Sciences from different disciplines
Choose 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.

EMU's Perspectives on a Diverse World requirement: *Complete one course from the following list:*
These courses also satisfy an MTA area: Communication: COM 225; **Natural Science**: ENV 101, 105; **Humanities:** ART 143, 150; COM 225; DAN 180; DRA 180; ENG 181, 213, 214, 242; FLM 150; HUM 175, 181; MUS 180; **Social Science:** ANT 201; ECO 280; GEO 101; HST 108, 109, 123, 150, 230; PSY 251; SOC 205. ***These courses apply, but do not satisfy the MTA:*** ECD 240

WCC AS in Computer Science: Programming in Java Requirements (30 credits)

CIS 120 Linux/UNIX I: Fundamentals (prev. CIS 121) 3	IA 212 Open Systems Platform & Network Admin 3
CIS 282 Database Principles and Application 3	IS 000 General Transfer Credit......................3
* CPS 161 An Introduction to Programming with Java.............4	COSC 111 & 112 Introduction to Programming.....................4
CPS 251 Android Programming using Java 4	AACR Gen Credit 4
* CPS 261 Advanced Java Concepts.........................4	COSC 211 & 212 Programming Data Structures 4
* CPS 276 Web Programming using Apache, MySQL, or PHP 4	COSC 231 Internet Based Computing (3)+1.......................4
CPS 278 Java Server Programming......................4	AACR Gen Credit (or COSC 111/112) 4
CPS 298 Professional Team Programming 4	AACR Gen Credit 4

EMU Requirements that May be Taken at WCC or EMU (12-13 credits)

*Choose two from: MTH 192, MTH 197, MTH 293, MTH 295...8	MATH 121, MATH 122, MATH 223, MATH 325 8
*Complete the second course in the science sequence 4-5	Second course of required science sequence:.................. 4-5
BIO 161, CEM 122, or PHY 222	BIO 120/121, CHEM 123/124, or PHY 224

Credits at WCC: ....73-76 | **Credits that transfer to EMU................. 73-76**

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

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Completion of the BS in Computer Science Curriculum

Major Requirements   (49 credits)

Mathematics Requirements (3 credits)
STAT 360   Statistical Methods 3

Required Computer Science Courses (26 credits)
COSC 221   Computer Organization I..............................3
COSC 311   Algorithms and Data Structures 4
COSC 314   Computational Discrete Structures 4
COSC 321   Computer Organization II...............................4
COSC 341   Programming Languages..............................4
COSC 381   Software Engineering Solutions...................4
COSC 481W Software Engineering and Senior Project 3

Restricted Elective Courses (20 credits)
Five courses from the following: 20
A minimum of two courses must be from List A and the
remaining courses may be selected from either list.

List A
    COSC 423   Computer Operating Systems (4)
    COSC 439   Computing Network Principles (4)
    COSC 444   Found of Automata & Languages (4)
    COSC 471   Database Principles (4)

List B
    COSC 374   Applied Cryptography (4)
    COSC 411   Algorithm Design & Analysis (4)
    COSC 421   Systems Programming (4)
    COSC 422   Intro to Microprocessors (4)
    COSC 426   Software Dvlpmnt for Mobile Devices (4)
    COSC 436   Web Programming (4)
    COSC 445   Compiler Construction (4)
    COSC 456   Computer Graphics (4)
    COSC 457   Computer Game Programming (4)
    COSC 461   Heuristic Programming (4)
    COSC 462   Introduction to Information Retrieval (4)
    COSC 472   Big Data I (4)
    COSC 473   Big Data II (4)
    COSC 480   Special Topics (4)

LBC Requirement
Students must complete one Learning Beyond the
Classroom course or noncredit experience offered by EMU.
Consult undergraduate catalog or major advisor for options.

Credits at EMU: 49
Transfer Credits: 73-76
Minimum Credits to Graduate:...............120

[1] *Fulfills EMU's Writing Intensive requirement.*

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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. WCC courses indicated with an * are required for EMU's BA in Computer Science, BS in Computer Science Applied, or BS in Computer Science Curriculum. Substitutions for these courses must be approved by the EMU program coordinator.

2. Students with the MTA endorsement on their community college transcript have satisfied EMU's General Education Core Requirements and will be required to complete only the General Education Application Requirements of one "Perspectives on a Diverse World" course, one "Learning Beyond the Classroom" experience, and a "Writing Intensive" course in the major. The Perspectives on a Diverse World requirement may be transferred to EMU.
To use the Michigan Transfer Agreement (MTA), students must have an official community college transcript, with the "MTA Satisfied" endorsement sent to EMU's Admissions Office. Students who do not have "MTA Satisfied" on their community college transcript, will be required to satisfy EMU's general education requirements as applied to transfer students. The MTA may be completed after admission to EMU, however, students should inform their advisors or they may be advised to complete additional courses for the general education program. If already on the transcript, the MACRAO designation will be accepted at EMU after August 2019.

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, EMU will waive the 60-hour rule and require that a minimum of 45 credit hours must be completed in EMU courses, with at least 15 hours in the program or (9 hours in the major and 6 hours in the minor), 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 EMU. 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 EMU, including submitting transcripts from all previously attended colleges. WCC students will receive equal consideration with other students for course registration and financial aid.

6. Students are encouraged to contact EMU's Undergraduate Admissions Office before applying to EMU. To facilitate advising and the evaluation of transcripts, bring a copy of this articulation guide to all advising sessions.

Effective Date: September 1, 2023 until August 31, 2026.

This is a renewal of an agreement made in September 2009 (BA in Computer Science 2019) and renewed in January 2013, September 2017 and September 2020. This agreement is consistent with the 2023-2024 catalog. Students have until summer 2031 to graduate from Eastern Michigan University following this agreement. In the event that a student does not complete the program within seven years, they may be required to have their credits reevaluated using the requirements of the current articulation guide.

Contacts:

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Advising
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advising@wccnet.edu

Eastern Michigan University
EMU Undergraduate Admissions
Student Center, Ste. 220
734.487.6453
transfer_admissions@emich.edu
Schedule an appointment