COMPUTER SCIENCE ARTICULATION AGREEMENT GUIDE

Washtenaw Community College – **AS in Computer Science: Programming in Java**
Eastern Michigan University – **BA in Computer Science**

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

Michigan Transfer Agreement (MTA) Requirements (30 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 from the approved MTA list..3   University Elective 3

3. A Course in Mathematics
*MTH 176 College Algebra 4   MATH 105 College Algebra (3)+1...4

4. Two courses in Natural Sciences from different disciplines (one lab required)
Choose from the approved MTA list 7-8   University Electives 7-8

5. Two courses in Humanities from different disciplines
Choose from the approved MTA list..6   University Elective 6

6. Two courses in Social Sciences from different disciplines
Choose from the approved MTA list 6   University Electives 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, 224, 242; FLM 150, 221; HUM 175; MUS 180; **Social Science:** ANT 201; ECO 280; GEO 101; HST 108, 109, 123, 150, 230, 235; PSY 251, 270; SOC 205.
 These courses apply, but do not satisfy the MTA: CCP 251; HUM 150, 221

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	University Elective 3
*CPS 161	Introduction to Programming with Java...................4	COSC 111/112	Introduction to Programming 4
*CPS 261	Advanced Java Concepts 4	COSC 211212	Programming Data Structures.....................4
*CPS 276	Web Programming Using Apache, MySQL, & PHP 4	COSC 231	Internet-based Computing (3)+1 4
CPS 278	Java Server Programming 4	IS 000	University Elective (or COSC 111/112)......4
CPS 251	Android Programming Using Java 4	IS 000	University Elective 4
CPS 298	Professional Team Programming 4	AACR Gen Credit 4

EMU Requirements and Electives that May be Taken at WCC or EMU (16 credits)

Minor requirement courses/open electives............................ 16   Minor requirement courses/university electives................... 16

This program requires a minor. 100 level or higher transfer credit may be applied as university elective or as credit toward a minor at EMU. Minors available at EMU can be found in EMU's catalog (catalog.emich.edu). Course equivalencies for WCC courses transferring to EMU can be found at EMU's transfer equivalency page (app.emich.edu/transfereq)

Credits at WCC:..76	**Credits that transfer to EMU........................76**

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

Sign up with us: If you let us know you are using this articulation agreement we can stay in touch with you and provide information and advising to you while you are still at your community college.

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Completion of the BA in Computer Science at EMU

Major Requirements   (34 credits)

Required Computer Science Courses: 22 credits
COSC 221   Computer Organization I...........................3
COSC 311   Algorithms and Data Structures 4
COSC 314   Computational Discrete Structures 4
COSC 341   Programming Languages.........................4
COSC 381   Software Engineering Solutions...............4
[1]COSC 481W Software Engineering and Senior Project 3

Restricted Elective Courses: 12 credits
Choose one course from the following:
COSC 374   Applied Cryptography (4)
COSC 421   Systems Programming (4)
COSC 423   Computer Operating Systems (4)
COSC 426   Software Dvlpment for Mobile Devices (4)
COSC 436   Web Programming (4)
COSC 439   Computing Network Principles (4)
COSC 445   Compiler Construction (4)
COSC 456   Computer Graphics (4)
COSC 457   Computer Game Programming (4)
COSC 461   Introduction to Artificial Intelligence (4)
COSC 471   Database Principles (4)

Choose two courses from the list below or above, not already taken:
COSC 315   Symbolic Computing (4)
COSC 321   Computer Organization II (4)
COSC 405   Switching Theory (4)
COSC 411   Algorithm Design and Analysis (4)
COSC 422   Introduction to Microprocessors (4)
COSC 444   Foundations of Automata &Languages (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 your advisor for options.

Minor Requirements: (14 credits)
Students must complete a minor for this program with at least six credits at the 300/400 level at EMU. Some courses for the minor may be transferred to EMU. Students may have more than 14 credits to complete at EMU depending on the minor chosen.

Credits at EMU:... 48
Transfer Credits... 76
Minimum Credits to Graduate: 124

[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 transferrable courses from each other and from other regionally accredited institutions. WCC courses indicated with an * are required for EMU's BA in Computer Science. 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 30 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 124 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 Computer Science program coordinator before applying to EMU. To facilitate advising and the evaluation of transcripts, sign up for this articulation agreement and bring a copy of this articulation guide to all advising sessions.

Effective Date: September 1, 2019 until August 31, 2022.
This agreement is consistent with the 2019-2020 catalog. Students have until Summer 2027 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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