

**COMPUTER SCIENCE APPLIED ARTICULATION AGREEMENT GUIDE**

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

**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
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**2. A Course in English Composition or Communication**

Choose from the approved MTA list.....	3	General Transfer Credit .....	3
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**3. A Course in Mathematics**

* MTH 191 Calculus I .....	5	MATH 120 Calculus I (4)+1 .....	5
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**4. Two courses in Natural Sciences from different disciplines (one lab required)**

Choose two from the approved MTA list .....	7-8	General Transfer Credit.....	7-8
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**5. Two courses in Humanities from different disciplines**

Choose two from the approved MTA list .....	6	General Transfer Credit.....	6
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**6. Two courses in Social Sciences from different disciplines**

Choose from the approved MTA list .....	6	General Transfer Credit.....	6
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**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; HUM 150, 175, 221; MUS 180; **Social Science:** ANT 201; ECO 280; GEO 101; HST 109, 123, 150, 230, 235; PSY 251, 270; SOC 205. **These courses apply, but do not satisfy the MTA:** CCP 251

**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 PHP4 .....	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 (15 credits)**

Open Electives .....	15	General Transfer Credits .....	15
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<b>Credits at WCC: .....</b>	<b>75</b>	<b>Credits that transfer to EMU .....</b>	<b>75</b>
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\*Required for EMU's BS in Computer Science Applied 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 EMU's BS in Computer Science Major-Applied****Major Requirements (45 credits)****Mathematics Requirements (3 credits)**

STAT 360 Statistical Methods.....3

**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  
<sup>1</sup>COSC 481W Software Engineering and Senior Project.....3

**Restricted Elective Courses (20 credits)**

Select 20 credits from the following:.....20

Only one 300-level course may be used to satisfy this requirement.

COSC 315 Symbolic Computing  
 COSC 321 Computer Organization  
 COSC 374 Applied Cryptography  
 COSC 405 Switching Theory  
 COSC 411 Algorithm Design and Analysis  
 COSC 421 Systems Programming  
 COSC 422 Intro to Microprocessors  
 COSC 423 Computer Operating Systems  
 COSC 426 Software Dvlpmnt for Mobile Devices  
 COSC 436 Web Programming  
 COSC 439 Computing Network Principles  
 COSC 444 Found of Automata & Languages  
 COSC 445 Compiler Construction  
 COSC 456 Computer Graphics  
 COSC 457 Computer Game Programming  
 COSC 461 Heuristic Programming  
 COSC 462 Introduction to Information Retrieval  
 COSC 471 Database Principles  
 COSC 472 Big Data I  
 COSC 473 Big Data II  
 COSC 480 Special Topics (4)

**LBC Requirement**

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

**Credits at EMU: ..... 45**  
**Transfer Credits ..... 75**  
**Minimum Credits to Graduate:..... 120**

<sup>1</sup> *Fulfills EMU's Writing Intensive Requirement.*

**COMPUTER SCIENCE CURRICULUM ARTICULATION AGREEMENT GUIDE**Washtenaw Community College – **AS in Computer Science: Programming in Java**Eastern Michigan University – **BS in Computer Science Applied****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 BS in Computer Science Applied. 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 120 credit hours (Fall 2022), 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 BS in Computer Science Applied 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, 2020 until August 31, 2023.**

This is a renewal of an agreement made in September 2009 and renewed in January 2013 and September 2017. This agreement is consistent with the 2020-2021 catalog. Students have until summer 2028 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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