

COMPUTER SCIENCE - CURRICULUM ARTICULATION AGREEMENT GUIDEWashtenaw Community College – **AS in Computer Science: Programming in Java**Eastern Michigan University – **BS in Computer Science Major - Curriculum**

Washtenaw Community College Courses:	Transfer to Eastern Michigan University:
Michigan Transfer Agreement (MTA) Requirements (30 credits)	
Students with an 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. <u>Courses listed below for the MTA also satisfy major requirements at EMU.</u> Students who enrolled in college before fall semester 2014 may continue to follow the MACRAO Agreement until the end of summer semester 2019. A MACRAO version of this articulation guide is available at http://www.emich.edu/ccr/archartguide_macrao.php . For courses approved to satisfy the MTA go to http://www.wccnet.edu/services/transferreresources/mta/	
1. A Course in English Composition	
ENG 111 Composition I4	University elective4
2. A Course in English Composition or Communication	
ENG 226 Composition II3	University elective3
3. A Course in Mathematics	
¹ MTH 176 College Algebra.....4	MATH 105 College Algebra (3)+14
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 161, CHM 111, GLG 114 or PHY 211	BIO 110/111, CHEM 121/122, ESSC 110, or PHY 223
* Complete a course from a different science discipline..... 4-5	A Science course from a different discipline 4-5
Choose from the courses below:	Choose from the courses below:
BIO 161, CEM 111, GLG 114, or PHY 211	BIO 110/111, CHEM 121/122, ESSC 110, or PHY 223
5. Two courses in Humanities from different disciplines	
² COM 225 Intercultural Communication3	CTAC 274 Intercultural Com (Persp Diverse World Reqmt) ...3
Choose from the approved MTA list3	University elective3
6. Two courses in Social Sciences from different disciplines	
Choose from the approved MTA list6	University electives6
7. If needed, complete additional courses in any of the above categories to satisfy the 30 credit minimum for the MTA.	
WCC Program Requirements (31-32 credits)	
*CPS 161 An Introduction to Programming with Java4	COSC 111/112 Introduction to Programming.....4
*CPS 261 Advanced Java Concepts4	COSC 211/212 Programming Data Structures4
CPS 276 Web Programming using Apache, MySQL, or PHP4	University Elective (IS 247)4
CPS 278 Java Server Programming4	University elective4
CPS 251 Android Programming using Java4	University elective4
CPS 298 Professional Team Programming.....4	University elective4
CIS 282 Database Principles and Application.....3	University elective3
* Complete the second course in the science sequence..... 4-5	Second course of required science sequence: 4-5
BIO 162, CHM 122, GLG 125 or PHY 222	BIO 120/121, CHEM 123/124, ESSC 111, or PHY 224
EMU Requirements that May be Taken at WCC or EMU (up to 16-18 credits)	
*MTH 191 Calculus I5	MATH 120 Calculus I (4) +15
*MTH 192 Calculus II4	MATH 121 Calc II or other 200-level or higher non-teaching.4
*MTH 197 Linear Algebra.....4	MATH 122 Elementary Linear Algebra (3) +14
* Complete an additional course from a discipline below: 3-5	Additional required science course 3-5
Choose from Biology, Chemistry, Physics or Psychology	Must transfer as BIO, CHEM, PHY, or PSY
Open Electives (Not to exceed 78 credits at WCC) 0-7	Course need not be intended for science majors
.....	One or two courses 0-7
Maximum Credits at WCC:78	Maximum Credits that transfer to EMU..... 78

* Required for EMU's Computer Science Major-Curriculum. If not transferred, must be completed at EMU.

¹ Prerequisite for MATH 191. If students initially place into Calculus I, College Algebra is not required.² Satisfies EMU's Perspectives on a Diverse World requirement**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. Sign up at: www.emich.edu/ccr/trackingssystem/Enter.php

COMPUTER SCIENCE - CURRICULUM ARTICULATION AGREEMENT GUIDEWashtenaw Community College – **AS in Computer Science: Programming in Java**Eastern Michigan University – **BS in Computer Science Major - Curriculum****Completion of EMU's BS in Computer Science Curriculum****Major Requirements (49-52 credits)****Mathematics Requirements (7 credits)**

MATH 205	Mathematical Structures for Computer Science	4
STAT 360	Statistical Methods	3

Required Computer Science Courses (42 credits)

COSC 221	Computer Organization I	3
COSC 231	Internet Based Computing	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 423	Computer Operating Systems	4
COSC 439	Computing Network Principles	4
COSC 444	Foundations of Automata and Languages	4
COSC 471	Database Principles COSC 471	4
COSC 481W	Software Engineering and Senior Project	4

LBC Requirement (0-3 credits)

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:..... 49-52

Transfer Credits: 75-78

*Minimum Credits to Graduate: 124

Sample Sequence for completing this program:

Courses may not be offered every semester. Consult the program advisor to develop a program of study.

Fall Semester (10-13 credits)

COSC 221	prereq: COSC 111	3
COSC 231	prereq: COSC 111 & 211	3
MATH 205	prereq: MATH 120	4
LBC Requirement		0-3

Winter Semester (12 credits)

COSC 311	prereq: COSC 211 & 221	4
COSC 314	prereq: COSC 211 & MATH 205	4
COSC 321	prereq: COSC 211 & 221	4

Fall Semester (15 credits)

COSC 341	prereq: COSC 211 & 221	4
COSC 439	prereq: COSC 221 & 311	4
COSC 444	prereq: COSC 311 & 314	4
STAT 360	prereq: MATH 120	3

Winter Semester (12 credits)

COSC 481W	prereq: COSC 311	4
COSC 423	prereq: COSC 221 & 311	4
COSC 471	prereq: COSC 311 & 314	4

* A minimum of 124 credits is required to graduate. If sufficient credits are not transferred, additional credits will be required at EMU to satisfy the 124 credit minimum.

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Additional information:

1. Each institution will determine the satisfaction of their individual program and degree requirements. Both WCC and EMU 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. 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. Students who enrolled in college prior to fall semester 2014 will have until the end of summer semester 2019 to complete the MACRAO agreement. 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 43 credit hours must be completed at the four-year college level, of which 30 hours must be in courses offered by EMU, with 9 hours in the major and 6 hours in a minor, at the 300-level or above. Of the last 30 hours completed before graduating, at least 10 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. A minimum cumulative GPA of 2.0 is required for admission to EMU. Students must meet 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 the computer science major advisor before applying to EMU. To facilitate advising and the evaluation of transcripts, sign up for this articulation agreement using the link www.emich.edu/ccr/trackingssystem/Enter.php, and bring a copy to all advising sessions. Copies of the articulation guide are available on EMU's webpage at www.emich.edu/ccr/artguide.php.

Effective Dates: September 1, 2017 until August 31, 2020.

This is a renewal of an agreement made in September 2009 and renewed in January 2013. Students who began this program prior to the new effective date have the option of changing to this guide or may follow the guide they started under for up to seven years. If this agreement is not renewed at the end of the effective period, students who already began the program at WCC will have an additional three years to be admitted to EMU under the terms of the agreement.

Contacts:

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