COMPUTER SCIENCE CURRICULUM ARTICULATION AGREEMENT GUIDE
Washtenaw 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 (32-34 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. Courses listed below for the MTA also satisfy major requirements at EMU. Students who enrolled in college before fall 2014 may continue to follow the MACRAO Agreement until the end of summer 2019. A MACRAO version of this guide is available at https://www.emich.edu/ccr/articulation-agreements/guides/archive.php . For courses approved to satisfy the MTA go to http://www.wccnet.edu/services/transferresources/mta/

1. A Course in English Composition

ENG 111 Composition I.. 4	University elective 4

2. A Course in English Composition or Communication

ENG 226 Composition II... 3	University elective 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
² BIO 161, CHM 111, or PHY 211	BIO 120/121, CHEM 121/122, or PHY 223
*Complete a course from a different science discipline 4-5	Required science course from a different discipline 4-5
Course must be intended for majors in the disciplines below:	Course must be intended for majors in the disciplines below:
BIO 161, CEM 111, GLG 114, or PHY 211	BIO 120/121, CHEM 121/122, ESSC 110, or PHY 223

5. Two courses in Humanities from different disciplines

³COM 225 Intercultural Communication 3	CTAC 274 Intercultural Com (Persp Diverse World Reqmt) 3
Choose from the approved MTA list.. 3	University elective 3

6. Two courses in Social Sciences from different disciplines

Choose from the approved MTA list 6	University electives 6

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 Java 4	COSC 111/112 Introduction to Programming 4
*CPS 261 Advanced Java Concepts 4	COSC 211/212 Programming Data Structures.........................4
CPS 276 Web Programming using Apache, MySQL, or PHP ... 4	University Elective (IS 247)...4
CPS 278 Java Server Programming 4	University elective 4
CPS 251 Android Programming using Java............................... 4	University elective 4
CPS 298 Professional Team Programming 4	University elective 4
CIS 282 Database Principles and Application 3	University elective 3
*Complete the second course in the science sequence 4-5	Second course of required science sequence: 4-5
BIO 162, CHM 122, or PHY 222	BIO 110/111, CHEM 123/124, or PHY 224

EMU Requirements that May be Taken at WCC or EMU (11-13 credits)

*MTH 192 Calculus II 4	MATH 121 Calc II or other 200-level or higher non-teaching .4
*MTH 197 Linear Algebra..4	MATH 122 Elementary Linear Algebra (3)+1 4
*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
	Course need not be intended for science majors

Credits at WCC:... 74-75	Credits that Apply to Major at EMU....... 72-75

*This course is required for EMU's Computer Science Comprehensive Major.
¹ Prerequisite for MTH 191 is MTH 105 College Algebra. If students initially place into Calculus I, College Algebra is not required.
² Students who want to complete an Earth Science sequence can complete GLG 114 at WCC and ESSC 111 at EMU.
³ 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/trackingsystem/Enter.php

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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: 72-75
*Minimum Credits to Graduate: 124

Sample Sequence for completing this program:
  Courses may not be offered every semester. Consult the program advisor for 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/trackingsystem/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.

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