COMPUTER SCIENCE - APPLIED ARTICULATION AGREEMENT GUIDE

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

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 guide is available at http://www.emich.edu/ccr/archartguide_macrao.php. For WCC 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	
[1] 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	
[2] COM 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 (32 credits)	
*CPS 161 An Introduction to Programming with Java 4	COSC 111 & 112 Intro 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 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
*MTH 191 Calculus I (Elective at WCC) 5	MATH 120 Calculus I (4)+1 5
EMU Electives that May be Taken at WCC or EMU (2-19 credits)	
[3] Open Electives 2-19	University Electives or minor requirements 2-19
100-level or above transferable courses may be applied as university electives or toward an approved minor at EMU.	
Minors may be found on the web at http://catalog.emich.edu/ Look under major/minors.	
Course equivalencies may be found at http://it.emich.edu/service/online/tranequiv/	
Choose a minor at EMU and see an EMU advisor to determine how many courses are needed and their transferability, before completing any electives at WCC. A minor of at least 20 credit hours is required for EMU's Computer Science Major-Applied.	
Credits at WCC: 64-81	**Credits that transfer to EMU 64-81**

This course is required for EMU's Computer Science Major - Applied.
[1] *Prerequisite for Calculus I. If students initially place into Calculus I, College Algebra isn't required.*
[2] *Satisfies EMU's Perspectives on a Diverse World requirement and WCC's general education speech requirement.*
[3] *See an EMU advisor to choose a minor at EMU and to determine how many courses are needed and their transferability before completing electives at WCC. A minor of at least 20 credit hours is required for EMU's degree.*

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 Major-Applied

Major Requirements (37 credits)

Mathematics Requirements (7 credits)
MATH 205   Mathematical Structures for Computer Science.......4
STAT 360   Statistical Methods...3

Required Computer Science Courses (22 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 341   Programming Languages...4
COSC 481W Software Engineering and Senior Project................4

Restricted Elective Courses (8 credits)
Choose two courses from the following:.........................8
    COSC 315   Symbolic computing (4)
    COSC 321   Computer Organization II (4)
    COSC 374   Applied Cryptography (4)
    COSC 405   Switching Theory (4)
    COSC 421   Systems Programming (4)
    COSC 422   Intro to Microprocessors (4)
    COSC 423   Computer Operating Systems (4)
    COSC 436   Web Programming (4)
    COSC 439   Computing Network Principles (4)
    COSC 444   Foundations of Automata and Languages (4)
    COSC 445   Compiler Construction (4)
    COSC 456   Computer Graphics (4)
    COSC 457   Computer Game Programming (4)
    COSC 461   Heuristic Programming (4)
    COSC 471   Database Principles (4)

Minor Requirements (6-20 hours)
Students must complete a minor of at least 20 hours. Some of those hours may be completed at WCC. At least 6 hours toward the minor must be completed in EMU courses at the 300 level or above. Some minors may require more than 20 hours.

LBC Requirement (0-3 credits)
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.

Minimum Credits at EMU:...**43-60**
Transfer Credits...**64-81**
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 (13-16 credits)
COSC 221   prereq: COSC 111...3
COSC 231   prereq: COSC 111 & 211.......................................3
MATH 205   prereq: MATH 120...4
Minor Requirement...3
LBC Requirement...0-3

Winter Semester (15 credits)
COSC 311   prereq: COSC 211 & 221.......................................4
COSC 314   prereq: COSC 211 & MATH 205............................4
COSC Elective..4
Minor Requirement...3

Fall Semester (14 credits)
COSC 341   prereq: COSC 211 & 221.......................................4
STAT 360   prereq: MATH 120...3
COSC Elective..4
Minor Requirement...3

Winter Semester (4-15 credits)
COSC 481W prereq: COSC 311...4
Minor Requirements..0-11

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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.

Contacts:

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