

**COMPUTER INFORMATION SYSTEMS ARTICULATION AGREEMENT GUIDE**

Washtenaw Community College – AS in Information Systems: Programming in C++  
 Eastern Michigan University – BBA in Computer Information Systems

**Washtenaw Community College Courses:****Eastern Michigan University Courses:****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. Courses listed below for the MTA also satisfy major requirements at EMU and/or WCC. For courses approved to satisfy the MTA go to [WCC's website](#).

**1. A Course in English Composition**

ENG 111 Composition I..... 4      WRTG 121 Composition II (3)+1 ..... 4

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

Choose from the approved MTA list..... 3      University Elective ..... 3

**3. A Course in Mathematics**

MTH 176 or higher that meets the MTA ..... 4      MATH 105 or University Elective..... 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 Electives ..... 6

**6. Two Courses in Social Sciences from Different Disciplines**

\*ECO 211 Principles of Economics I ..... 3      ECON 201 Principles of Macroeconomics ..... 3

Choose from the approved MTA list..... 3      University Elective ..... 3

**If needed, complete additional credits in any of the above categories to meet the 30 credit minimum for the MTA.**

**EMU "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 Information Systems: Programming in C++ Requirements (23 credits)**

CIS 120 Linux/Unix I: Fundamentals (prev. CIS 121)..... 3      IA 212 University Elective ..... 3

CPS 171 Intro to Programming with C++..... 4      COSC 246 University Elective ..... 4

\*CPS 271 Object Features of C++ (4) AND

\*CPS 272 Data Structures with C++ (4) ..... 8      IS 315 Object-Oriented Application Dev (3)+5..... 8

\*CPS 276 Web Prog Using Apache, MySQL, & PHP..... 4      IS 247 Intro to Web Application and Dev (3)+1..... 4

CPS 298 Professional Team Programming ..... 4      COSC 000 University Elective ..... 4

**EMU Requirements that May be Taken at WCC or EMU (29 credits)**

\*ACC 111 Principles of Accounting I ..... 3      ACC 240 Principles of Financial Accounting ..... 3

\*ACC 122 Principles of Accounting II ..... 3      ACC 241 Principles of Managerial Accounting..... 3

\*BMG 207 Business Communication ..... 3      MGMT 202 Business Communication ..... 3

\*BMG 111 Business Law I ..... 3      LAW 293 Legal Environment of Business ..... 3

\*BMG 140 Introduction to Business (Elective) ..... 3      COB 200 Introduction to Business ..... 3

\*BMG 265 Business Statistics..... 3      DS 265 Business Statistics..... 3

\*CIS 110 Intro to Comp Info Systems (Elective)..... 3      IS 215 Information Systems for Business ..... 3

\*ECO 222 Principles of Economics II ..... 3      ECON 202 Principles of Microeconomics ..... 3

Open Electives ..... 5      University Electives ..... 5

**Credits at WCC: ..... 82      Credits that transfer to EMU ..... 82**

\*Required for EMU's BBA in Computer Information Systems program. If not transferred, must be completed at EMU.

Note: Students must complete MTA or MACRAO or (WRTG 121 and CTAC 124 at EMU) or ENG 111 and COM 101 at WCC with a grade of "C" or higher.

**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 BBA in Computer Information Systems at EMU****Business Administration Core (15 credits)**

FIN 350 Principles of Finance .....	3
MGMT 386 Organizational Behavior & Theory.....	3
MGMT 490 Business Policy .....	3
MKTG 360 Principles of Marketing .....	3
OM 374 Introduction to Operations Management .....	3

**Discipline Requirements (24 credits)**

IS 320 Business Data Comm & Information Security .....	3
IS 350 Enterprise Resource Planning and Architecture ..	3
IS 380 Data and Information Management.....	3
IS 417 Systems Analysis and Design.....	3
IS 425 IS Project and Risk Management.....	3
IS 449W IS Strategy, Management & Acquisition.....	3
Restricted Electives (choose 2 courses): .....	6
IS 310 Social Media for Business (3)	
IS 385 Data Warehousing (3)	
IS 400 Business Data Modeling & Visualization (3)	
IS 405 Web Content Mining (3)	
IS 410 Data Mining (3)	
IS 415 Business Mobile Application Development (3)	
IS 422 Social Media Network Analysis (3)	
IS 427 Business Process and Identity Management (3)	
IS 437 Intro to Business Info Technology Audit (3)	

**LBC Requirement**

One Learning Beyond the Classroom (LBC) course or noncredit experience must be completed at EMU. Consult College of Business advisor for options.

**University Electives (3 credits)**

Complete enough credits to bring the minimum at the four-year college level to 42 credits. Additional electives may be required at EMU if fewer than 82 credits are transferred.

<b>Transfer Credits:</b> .....	<b>82</b>
<b>Minimum Credits at EMU:</b> .....	<b>42</b>
<b>Minimum Credits to Graduate:</b> .....	<b>124</b>

**Sample Sequence for completing the program:**

Courses may not be offered every semester. Consult with a COB advisor to make a course plan.

**First Semester (12 credits)**

FIN 350 F,W,S, prereq: ACC 240 .....	3
MKTG 360 F,W,S, online.....	3
IS 320 F,W,prereq: IS 215.....	3
IS Restricted Electives.....	3

**Second Semester (12 credits)**

MGMT 386 F,W,S, online.....	3
OM 374 F,W,S, online, prereq: DS 251 or 265 .....	3
IS 380 F,W,S, prereq: IS 247.....	3
IS 417 F,W, prereq: IS 247 .....	3

**Third Semester (12 credits)**

MGMT 490 F,W,S, online, Concur Prereq: OM 374.....	3
IS 350 F, prereq: IS 215 .....	3
IS 425 F,W, prereq: IS 380.....	3
IS Restricted Elective.....	3

**Fourth Semester (6 credits)**

IS 449W F,W, pre-req: IS 417 and IS 425 .....	3
University Elective or LBC Requirement.....	3

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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 BBA in Computer Information Systems. 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 42 credit hours must be completed at the four year college level with a minimum of 30 hours in EMU courses, with at least 15 hours in the program 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. To be admitted to the COB, students must have completed all 12 pre-admission courses and have an EMU GPA of a 2.5 or higher. Students that have completed all of the pre-admission business foundation courses except DS 265 or DS 251 will need to successfully complete DS 265 or DS 251 in the first semester at EMU. Students missing pre-admissions business foundation courses beyond DS 265 or DS 251 should consult with an EMU advisor to plan how to complete those courses.
6. 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.
7. Students are encouraged to contact EMU's BBA in Computer Information Systems 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 Dates: September 1, 2019 until August 31, 2022.

This is a renewal of an agreement made in February 1999 and renewed in 2003, 2006, 2009, 2012 and 2015. 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:

#### Washtenaw Community College

Business and Computer Technologies

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#### Eastern Michigan University

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