

COMPUTER SCIENCE ARTICULATION AGREEMENT GUIDE

Schoolcraft College –AAS in CIS: Programming

Eastern Michigan University – BS in Computer Science Major - Applied

Schoolcraft College Courses:

Transfer to Eastern Michigan University:

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 EMU General Education Application Requirements of one Perspectives on a Diverse World course, one Learning beyond the Classroom experience, and one Writing Intensive course in the major. Specific courses listed below for the MTA will also satisfy program requirements at Schoolcraft and/or EMU. For courses approved by Schoolcraft to satisfy the MTA go to [Schoolcraft's website](#). Students who do not have a MACRAO or MTA endorsement must complete EMU's general education program.

1. A Course in English Composition	
ENG 101 English Composition 13	University Elective 3
2. A Second Course in English Composition or Communication	
ENG 102 English Composition 23	University Elective 3
3. A Course in Mathematics	
* MATH 150 Calculus I (in place of MATH 126, 113)5	MATH 120 Calculus I (4)+1 5
4. Two Natural Science courses from different disciplines (one lab required)	
Choose from the approved MTA list7-8	University Elective 7-8
5. Two Humanities courses from different disciplines	
COMA 103 Fundamentals of Speech3	CTAC 124 Foundations of Speech Communication 3
Choose from the approved MTA list3	University Electives 3
6. Two Social Science courses from different disciplines	
Choose one of the following: POLS 105; PSYCH 153 or 201 .3-4	University Electives 3-4
Choose from the approved MTA list3	University Electives 3

If needed, complete additional courses in any of the above categories to satisfy 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: **Natural Science:** BIOL 104; GEOG 212; **Humanities:** ENG 170, 275; HIST 138; HUM 150, 201, 202, 203, 204; **Social Sciences:** ANTH 112, 201, 214; GEOG 133; HIST 138; POLS 207, 209; SOC 210

These courses apply, but do not satisfy the MTA: BUS 240; CCD 217; EDUC 200; SPE 100

Schoolcraft CIS: Programming Requirements (43-44 credits)

CIS 115 Introduction to Computer Based Systems.....3	IS 215 Information Systems for Business 3
* CIS 129 Introduction to Programming Logic (3) and 0	
* CIS 290 Object-Oriented Programming w/Java (3).....6	COSC 111/112 Intro to Computer Programming (4)+2 6
CIS 176 Visual Basic.NET3	BMMT 000 University Elective 3
* CIS 211 Introduction to C++ (2) and	
* CIS 221 Advanced C++ (2)4	COSC 211/212 Programming Data Structures 4
CIS 225 Database Management Systems3	IS 000 University Elective 3
* CIS 238 JavaScript (Program Elective).....3	COSC 231 Internet Based Computing 3
CIS 250 Systems Development and Design4	IS 000 University Elective 4
CIS 255 Introduction to Linux.....3	IA 212 University Elective 3
CNT 115 Cybersecurity Fundamentals3	ISAC 000 University Elective 3
Choose one of the following: CIS 170 or 1783	BMMT 000 University Elective 3
Choose 8-9 credits from the following:8-9	University Electives 8-9
CIS 120, 122, 171, 185, 223, 251	

EMU Requirements that May be Taken at Schoolcraft or EMU (5-6 credits)

Open Electives (not to exceed 79 credits at SC)5-6	University Electives 5-6
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Credits at Schoolcraft:79 Credits that transfer to EMU..... 79

* This course is required for EMU's Computer Science Major-Applied.

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 - Applied

Major Requirements (45 credits)

Required Math Courses (3 credits)

STAT 360 Statistical Methods3

Required Computer Science Courses (22 credits)

COSC 221 Computer Organization I3

COSC 311 Algorithms and Data Structures4

COSC 314 Computational Discrete Structures4

COSC 341 Programming Languages4

COSC 381 Software Engineering Solutions4

COSC 481W Software Engineering and Senior Project3

Restricted Elective Courses (20 credits)

Five courses from the following:20

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

COSC 315 Symbolic Computing

or COSC 321 Computer Organization

or 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 computer science advisor for options.

Credits at EMU:.....45

Transfer Credits.....79

Minimum Credits to Graduate:124

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Eastern Michigan University – BS in Computer Science – Applied, BS in Computer Science – Curriculum, or a BA in Computer Science

Additional information:

1. Each institution will determine the satisfaction of their individual program and degree requirements. Both Schoolcraft and EMU agree to accept transferrable courses from each other and from other institutions. Schoolcraft courses indicated with an * are required for EMU's BS in Computer Science or the BA 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. 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 with at least 30 hours in EMU courses, 15 hours of which must be in program requirements 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. Students must satisfy all admission requirements at the time of application for admission to EMU, including submitting transcripts from all previously attended colleges. Schoolcraft students will receive equal consideration with other students for course registration and financial aid.
6. Students are encouraged to contact EMU's Bachelor of Science in Computer Science 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.
- 7.

Effective Dates: September 1, 2019 until August 31, 2022

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:

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