

ARTICULATION AGREEMENT BETWEEN
Henry Ford College
AS in Computer Science
and
Eastern Michigan University
BS in Computer Science Applied or
BS in Computer Science Curriculum

Article I
Agreement on Principle

Eastern Michigan University (EMU) and Henry Ford College (HFC) agree that students who choose to begin their studies at a community college and transfer to a university to earn a bachelor's degree should be provided with a smooth curriculum transition that minimizes loss of credit and duplication of coursework. Therefore, EMU and HFC agree to enter into this Articulation Agreement ("Agreement") to facilitate the completion of the AS in Computer Science program at HFC and the BS in Computer Science Applied or the BS in Computer Science Curriculum at EMU. Both parties enter into this Agreement as cooperating, equal partners who shall maintain the integrity of their separate programs.

Article II
Agreement on Program Specifics

EMU and HFC agree that interested students may transfer the course credits indicated on the attached articulation guide toward a BS in Computer Science Applied or a BS in Computer Science Curriculum at EMU. Under this Agreement the 60-hour rule for courses taken at the four year level will be waived and require that a minimum of 30 credit hours to be completed in courses offered by EMU, of which 15 hours must be in major/program requirements at the 300-level or above. A minimum of 124 total credits is required to graduate.

To use this Agreement students must apply and be admitted to EMU. HFC students will receive equal consideration with other students seeking admission and financial aid.

The Michigan Transfer Agreement (MTA) requirements may be completed at the most appropriate time for the student whether before or after admission to EMU. If already on the transcript, the MACRAO designation will be accepted at EMU after summer semester 2019. Students who have not satisfied the MTA or MACRAO agreement must complete EMU's General Education Requirements as applied to transfer students. All other EMU graduation and program requirements must be satisfied whether by transferred courses, EMU courses, or approved substitutions or waivers.

For the purpose of this Agreement, both HFC and EMU agree to accept transferable courses from each other and from other regionally accredited institutions. Articulation guides will be provided to assist students in completing the articulated program of study. Each institution will determine the satisfaction of their individual program and degree requirements. HFC courses indicated with an * on the articulation guide are required for EMU's program. Any substitutions for these courses must be approved by the EMU program coordinator if not already stated in the Agreement. In the case of a student who has accumulated credits before declaring this program, every effort will be made to maximize the use of credits already completed. All students using this Agreement will be encouraged to complete an associate degree, although it is not required. Students will be informed of reverse transfer

opportunities. Disputes regarding the transfer of courses may be appealed to the EMU Provost by contacting the Office of Community College Relations 734.487.6577.

Article III **Agreement on Communication**

EMU and HFC agree to cooperate in communicating with each other and with their common and respective publics concerning the established relationship between the two institutions. Communication may include the development of various kinds of publications to inform those who might benefit personally or professionally from the opportunities provided by this Agreement. Faculty and staff at both institutions will share the information in this Agreement with interested and qualified students and both institutions will provide counseling and advising to students and prospective students. EMU will provide transfer student performance data to HFC officials annually through the Community College Transfer Student Report. To the extent permitted by applicable law, including the Family Educational Rights and Privacy Act ("FERPA"), 20 U.S.C. § 1232g, and its implementing regulations, 34 C.F.R. § 99.1 et seq., HFC and EMU may share data on student achievement to assess program effectiveness.

Article IV **Maintenance and Review Procedures**

At least one administrative or faculty member from each institution will be appointed to act as agents for the implementation of this Agreement, to speak for the institutions and to communicate changes to respective faculty members, advisors, counselors, and others to whom the information is pertinent. Responsibility for oversight of this Agreement rests with the Vice President of Academic Affairs at HFC and the Department Head of Computer Science at EMU. Both parties agree to communicate annually any changes in their respective programs that may affect this Agreement.

Effective Date: September 1, 2020 until August 31, 2023.

This Agreement is consistent with the 2020-2021 catalog. Students have until summer 2028 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.

Termination: Either Party may terminate this Agreement without cause with 30 days written notice to the other, with the stipulation that students involved in programming at HFC or EMU pursuant to this Agreement at the time of termination shall be allowed to complete their training under the terms of the Agreement.

Article V **Miscellaneous Provisions**

Discrimination: The Parties agree orientation that they will not discriminate against any student or participant because of race, color, age, sex/gender, sexual, gender identity, gender expression, religion, national origin, height, weight, marital status, disability perceived disability, political affiliation, familial status, veteran status, genetic or other characteristic protected by law in the performance of programs and services under this Agreement, consistent with federal and state laws and with the non-

discrimination policies of each Party. Neither party will discriminate against any employee or applicant for employment (with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment) because of race, color, age, sex/gender, sexual orientation, gender identity, gender expression, religion, national origin, height, weight, marital status, disability, perceived disability, political affiliation, familial status, veteran status, genetic or other characteristic protected by law.

The Parties agree that they will provide appropriate accommodations and services for students with disabilities who are protected by the Americans with Disabilities Act and make sure that all of their programs are also accessible and comply with the Americans with Disabilities Act (ADA), Rehabilitation Act of 1974, World Wide Web Consortium's Accessibility Guidelines (W3CG) and any other applicable law or regulation.

Notices: Notices required under this Agreement shall be in writing and shall be sent registered mail or certified mail, return receipt requested. Such notices shall be addressed to the Parties at the addresses set forth below, or at such other address as may be specified by either Party. The Parties may otherwise communicate by email.

If to HFC: Academic Services (L-314)
Henry Ford College
5101 Evergreen Rd.
Dearborn, MI 48128
academicservices@hfcc.edu

If to EMU: Director, Community College Relations
Eastern Michigan University
200 McKenny Hall
Ypsilanti, MI 48197
ccr_office@emich.edu

Disputes. The Parties agree to attempt best efforts to resolve disputes on an informal basis through meetings and discussions. Disputes that are not resolved at the informal level will be submitted to facilitation. If facilitation is unsuccessful, the Parties shall submit their dispute to binding arbitration in lieu of litigation and waive the right to file suit against the other. The arbitration shall be conducted in Dearborn, Michigan by a mutually acceptable arbitrator who shall determine which Party(ies) shall be responsible for paying the arbitrator's fee.

Invalid Parts. If any provision of this Agreement is declared by any court of competent jurisdiction to be invalid for any reason, such invalidity shall not affect the remaining provisions. On the contrary, such remaining provisions shall be fully severable, and this Agreement shall be construed and enforced as if such invalid provisions never had been inserted in this Agreement.

Modifications. This Agreement may only be modified by written instrument signed by both Parties hereto.

Enforcement and Governing Law. All matters relating to the validity, interpretation, performance or enforcement of this Agreement, and any claims arising from or related to this Agreement, will be governed by and construed in accordance with the laws of the United States of America, State of Michigan, without regard to the principle of conflict of laws.

Indemnification. Statutory and common law theories and principles of indemnification, contribution, and equitable restitution shall govern and apply to claims, actions, causes of action, costs, expenses and losses (including attorneys' fees) resulting from or caused by the actions or omissions of the parties or their employees pursuant to this Agreement.

Entire Agreement. This Agreement embodies the entire agreement of the Parties and supersedes all other verbal and/or written agreements, warranties, representations, or understandings entered into by the Parties and may only be modified by a written amendment executed by authorized signatories of both Parties.

Counterparts. This Agreement may be executed in counterparts which, when combined, shall constitute the entire agreement.


**ARTICULATION AGREEMENT BETWEEN
Henry Ford College – AS in Computer Science
Eastern Michigan University- BS in Computer Science Applied or
BS in Computer Science Curriculum**

Henry Ford College and Eastern Michigan University agree to the terms of this Agreement, which is effective from September 1, 2020 until August 31, 2023. The signatories below warrant they are authorized to enter into this Agreement on behalf of their respective Parties.

Signatures

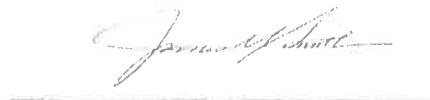
Henry Ford College

Eastern Michigan University




Russell Kavallhuna, JD
President

11/10/2020
Date



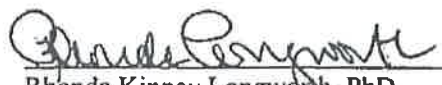
James M. Smith, PhD
President

9/30/2020
Date



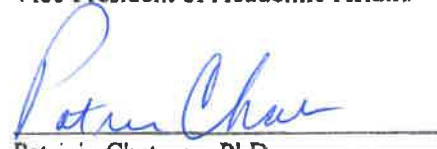
Michael Nealon, PhD
Vice President of Academic Affairs

11/4/2020
Date




Rhonda Kinney Longworth, PhD
Provost & Executive Vice President
Academic and Student Affairs

9/27/20
Date



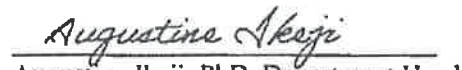
Patricia Chatman, PhD
Dean, School of Business, Entrepreneurship,
and Professional Development

10/28/2020
Date



Dana Heller, PhD
Dean, College of Arts and Sciences

9/23/2020
Date



Augustine Ikeji, PhD, Department Head
Computer Science Department

07/06/2020
Date

COMPUTER SCIENCE APPLIED ARTICULATION AGREEMENT GUIDE

Henry Ford College – AS in Computer Science

Eastern Michigan University – BS in Computer Science Applied

Henry Ford College Courses: **Eastern Michigan University Courses:**

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 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 program requirements at EMU and/or HFC. For HFC approved MTA courses go to HFC's website. Students without an MTA or MACRAO endorsement must complete EMU's general education program.

1. **A course in English Composition**
Choose one from ENG 131, 131A, 131H..... 3 WRTG 120 General Transfer Credit..... 3
2. **A course in English Composition or Communication**
Choose one from ENG 132, 132H, 135..... 3 WRTG 121 Composition II 3
3. **A course in Mathematics**
* MATH 180 Calculus I..... 5 MATH 120 Calculus I (4)+1 5
4. **Two courses in Natural Sciences from different disciplines (one lab required)**
Choose one from the approved MTA list..... 7-8 General Transfer Credit..... 7-8
5. **Two courses in Humanities and Fine Arts from different disciplines**
Choose two from the approved MTA list 6 General Transfer Credit..... 6
6. **Two courses in Social Sciences from different disciplines**
Choose two from the approved MTA list 6 General Transfer Credit..... 6

If needed, complete additional credits in any of the above categories to meet 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: BIO 138 (non-lab); Humanities: ART 224, 225, 226, 227; ENG 243, 248
Social Science: ANTH 131, 151, 152, 154; EDU 296; GEOG 132; HIST 113, 243, 252, 261; POLS 152; PSY 296; SOC 152, 251.

This course applies, but does not satisfy the MTA: BBA 250; LGL 248; PHIL 201; PLGL 248; WR 233, 236, 241

HFC AS in Computer Science Program Requirements (41 credits)

CIS 100 Introduction to Information Technology..... 3	IS 215 General Transfer Credit..... 3
CIS 111 SQL for Database Development..... 3	IS 000 General Transfer Credit..... 3
* CIS 122 Web Internet Technologies..... 3	COSC 231 Internet Based Computing 3
CIS 125 Principles of Programming Logic..... 4	COSC 000 General Transfer Credit..... 4
CIS 130 C# Programming..... 3	COSC 000 General Transfer Credit..... 3
* CIS 170 C Programming (3) and	
* CIS 171 Java Programming (3) 6	COSC 111/112 Introduction to Programming (4)+2 6
CIS 230 C++ Programming..... 3	COSC 246 General Transfer Credit..... 3
* CIS 271 Advanced Java..... 4	COSC 211/212 Programming Data Structures..... 4
CIS 294 Software Engineering..... 3	COSC 000 General Transfer Credit..... 3
MATH 183 Calculus II..... 5	MATH 121 General Transfer Credit (4)+1..... 5
MATH 275 Discrete Structures 4	MATH 205 General Transfer Credit..... 4

EMU Requirements and Electives that May be Taken at HFC or EMU (8 credits)

Open Elective Credit (not to exceed 79 credits at HFC)..... 8	General Transfer Credit..... 8
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Credits at HFC:..... 79 Credits that transfer to EMU..... 79

* Required for EMU's BS in Computer Science Applied program. If not transferred, must be completed at EMU.

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.

COMPUTER SCIENCE APPLIED ARTICULATION AGREEMENT GUIDE

Henry Ford College – Associate in Science
 Eastern Michigan University – BS in Computer Science Curriculum

Completion of EMU's BS in Computer Science Major Applied

Major Requirements (45 credits)

Mathematics Requirements (3 credits)

STAT 360 Statistical Methods.....3

Required Computer Science Courses (22 credits)

COSC 221 Computer Organization I.....3
 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 Project.....3

Restricted Elective Courses (20 credits)

Select twenty credit hours from the following, only one 300-level course may be used to satisfy this requirement.

- COSC 315 Symbolic Computing
- COSC 321 Computer Organization
- 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)

1 Satisfies EMU's Writing Intensive requirement.

LBC Requirement

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.

Credits at EMU: 45
Transfer Credits 79
Minimum Credits to Graduate:..... 124

COMPUTER SCIENCE CURRICULUM ARTICULATION AGREEMENT GUIDE

Henry Ford College – AS in Computer Science

Eastern Michigan University – BS in Computer Science Curriculum

Henry Ford College Courses:

Eastern Michigan University Courses:

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 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 program requirements at EMU and/or HFC. For HFC approved MTA courses go to HFC's website. Students without an MTA or MACRAO endorsement must complete EMU's general education program.

1. A course in English Composition		
Choose one from ENG 131, 131A, 131H.....	3	General Transfer Credit..... 3
2. A course in English Composition or Communication		
Choose one from ENG 132, 132H, 135.....	3	General Transfer Credit..... 3
3. A course in Mathematics		
* MATH 180 Calculus I.....	5	MATH 120 Calculus I (4)+1..... 5
4. Two courses in Natural Sciences from different disciplines (one lab required)		
* Choose one course for the first of the science sequence.....	4-5	First science course in sequence..... 4-5
BIO 152, CHEM 141, PHYS 231		BIO 110/111, CHEM 121/122, ESSC 110, PHY 223
Complete a course in a different science discipline.....	3-4	General Transfer Credit..... 3-4
5. Two courses in Humanities and Fine Arts from different disciplines		
Choose two from the approved MTA list.....	6	General Transfer Credit..... 6
6. Two courses in Social Sciences from different disciplines		
Choose two from the approved MTA list.....	6	General Transfer Credit..... 6

If needed, complete additional credits in any of the above categories to meet 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: BIO 138 (non-lab); Humanities: ART 224, 225, 226, 227; ENG 243, 248

Social Science: ANTH 131, 151, 152, 154; EDU 296; GEOG 132; HIST 113, 243, 252, 261; POLS 152; PSY 296; SOC 152, 251.

This course applies, but does not satisfy the MTA: BBA 250; LGL 248; PHIL 201; PLGL 248; WR 233, 236, 241

HFC AS in Computer Science Program Requirements (41 credits)

CIS 100 Introduction to Information Technology.....	3	IS 215 General Transfer Credit.....	3
CIS 111 SQL for Database Development.....	3	IS 000 General Transfer Credit.....	3
* CIS 122 Web Internet Technologies.....	3	COSC 231 Internet Based Computing.....	3
CIS 125 Principles of Programming Logic.....	4	COSC 000 General Transfer Credit.....	4
CIS 130 C# Programming.....	3	COSC 000 General Transfer Credit.....	3
* CIS 170 C Programming (3) and			
* CIS 171 Java Programming (3).....	6	COSC 111/112 Introduction to Programming (4)+2.....	6
CIS 230 C++ Programming.....	3	COSC 246 General Transfer Credit.....	3
* CIS 271 Advanced Java.....	4	COSC 211/212 Programming Data Structures.....	4
CIS 294 Software Engineering.....	3	COSC 000 General Transfer Credit.....	3
* MATH 183 Calculus II.....	5	MATH 121 Calculus II (4)+1.....	5
MATH 275 Discrete Structures.....	4	MATH 205 General Transfer Credit.....	4

EMU Requirements and Electives that May be Taken at HFC or EMU (9-10 credits)

* Complete a second course in the science sequence.....	4-5	Second science course in sequence.....	4-5
BIO 150, CHEM 142, PHYS 232		BIO 120/121, CHEM 123/124, ESSC 111, PHY 224	
* MATH 280 Calculus III.....	5	MATH 223 Multivariable Calculus (4)+1.....	5

Credits at HFC:.....80-81 Credits that transfer to EMU..... 73

* Required for EMU's BS in Computer Science Curriculum program. If not transferred, must be completed at EMU.

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.

COMPUTER SCIENCE CURRICULUM ARTICULATION AGREEMENT GUIDE

Henry Ford College – AS in Computer Science

Eastern Michigan University – BS in Computer Science Curriculum

Completion of EMU's BS in Computer Science Curriculum

Major Requirements (51 credits)

Mathematics Requirements (3 credits)

STAT 360 Statistical Methods3

Additional MATH/STAT course (6 credits)

Any MATH course 300 level or higher3

Any STAT course 300 level or higher3

Required Computer Science Courses (22 credits)

COSC 221 Computer Organization I3

COSC 311 Algorithms and Data Structures4

COSC 314 Computational Discrete Structures4

COSC 321 Computer Organization II4

COSC 341 Programming Languages4

COSC 381 Software Engineering Solutions4

¹ COSC 481W Software Engineering and Senior Project3

Restricted Elective Courses (20 credits)

Choose five courses from the following. At a minimum, two courses must be from List A. The remaining three courses may be selected from either list.

List A

- COSC 423 Computer Operating Systems
- COSC 439 Computing Network Principles
- COSC 444 Found of Automata & Languages
- COSC 471 Database Principles

List B

- COSC 374 Applied Cryptography
- COSC 411 Algorithm Design and Analysis
- COSC 421 Systems Programming
- COSC 422 Intro to Microprocessors
- COSC 426 Software Dvlpmnt for Mobile Devices
- COSC 436 Web Programming
- COSC 445 Compiler Construction
- COSC 456 Computer Graphics
- COSC 457 Computer Game Programming
- COSC 461 Heuristic Programming
- COSC 462 Introduction to Information Retrieval
- 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 the undergraduate catalog or your major advisor for options.

Credits at EMU: 51

Transfer Credits 73

Minimum Credits to Graduate: 124

¹ Satisfies EMU's Writing Intensive requirement.

COMPUTER SCIENCE CURRICULUM ARTICULATION AGREEMENT GUIDE

Henry Ford College – AS in Computer Science

Eastern Michigan University – BS in Computer Science Applied or
BS in Computer Science Curriculum

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. HFC courses indicated with an * are required for EMU's BS in Computer Science Applied or Curriculum. 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 30 credit hours must be completed 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. Students must satisfy all admission requirements at the time of application for admission to EMU, including submitting transcripts from all previously attended colleges. HFC students will receive equal consideration with other students for course registration and financial aid.
6. Students are encouraged to contact EMU's BS in Computer Science Applied or Curriculum 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 Date: September 1, 2020 until August 31, 2023.

This agreement is consistent with the 2020-2021 catalog. Students have until summer 2028 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:

Henry Ford College
David Maier, PhD
Faculty Chair
School of Business, Entrepreneurship
and Professional Development
E-162H; 313.845.9890
djmaier@hfc.edu

Eastern Michigan University
Francine Parker Advising Center
120 Student Center
734.487.4599
francineparker_advising@emich.edu