

COMPUTER SCIENCE ARTICULATION AGREEMENT GUIDE

Henry Ford College – Associate in Science or Associate in General Studies
Eastern Michigan University – BS in Computer Science - Applied

| Henry Ford 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. Courses listed below for the MTA will also satisfy degree or program requirements at HFC or EMU. Students who started college before fall semester 2014 may continue to follow the MACRAO Agreement until the end of summer semester 2019. MACRAO versions of articulation guides are posted online at http://www.emich.edu/ccr/archartguide_macrao.php . For courses approved to satisfy the MTA go to https://www.hfcc.edu/registration-and-records/mta/hfc-agreement | | | | | | | | | | | | | | | | | | | | | | | |
| <ol style="list-style-type: none"> 1. A Course in English Composition ENG 131 Introduction to College Writing3 University Elective 3 2. A Second Course in English Composition or a Course in Communication Choose from the approved MTA list3 University Elective 3 3. A Course in Mathematics ¹MATH 115 College Algebra.....4 University Elective 4 4. Two Courses in Natural Sciences from Different Disciplines (one lab required) Choose 2 from different disciplines, from the approved MTA list 7-8 University Electives 7-8 5. Two Courses in Humanities from Different Disciplines Choose 2 from different disciplines, from the approved MTA list..6 University Elective 6 6. Two Courses in Social Sciences from Different Disciplines Choose 2 from different disciplines, 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. | | | | | | | | | | | | | | | | | | | | | | | |
| <p><i>EMU's Perspectives on a Diverse World requirement: Complete one course from the following list:</i> <i>These courses also satisfy an MTA area: Natural Science: BIO 138 (non-lab); Humanities: ART 224, 225, 226, 227; ENG 243, 248; PHIL 201; WR 233, 236; Social Science: ANTH 131, 151, 152, 154; GEOG 132; HIST 113, 243, 261; PHIL 201; POLS 152; PSY 296; SOC 152, 251</i></p> | | | | | | | | | | | | | | | | | | | | | | | |
| HFC Courses that apply to EMU Computer Science Applied Major and HFC AS or AGS Degree (30-34 credits) | | | | | | | | | | | | | | | | | | | | | | | |
| <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">CIS 170 "C" Programming.....3</td> <td style="width: 50%; padding: 2px;">University Elective 3</td> </tr> <tr> <td style="padding: 2px;">* CIS 171 Java Programming.....3</td> <td style="padding: 2px;">COSC 111/112 Intro to Program (4)-1 3</td> </tr> <tr> <td style="padding: 2px;">* CIS 271 Advanced Java.....4</td> <td style="padding: 2px;">COSC 211/212 Programming Data Structures 4</td> </tr> <tr> <td style="padding: 2px;">* Complete one course:.....3-4</td> <td style="padding: 2px;">COSC 231 Internet Based Computing (3) 3-4</td> </tr> <tr> <td colspan="2" style="padding: 2px;"> CIS 122 Web Internet Technologies (3) or</td> </tr> <tr> <td colspan="2" style="padding: 2px;"> CIS 126 HTML/CSS Web Program (4)</td> </tr> <tr> <td style="padding: 2px;">¹MATH 175 Precalculus (prerequisite for MATH 180)5</td> <td style="padding: 2px;">MATH 112 Topics in Precalc Math (4)+1 5</td> </tr> <tr> <td style="padding: 2px;">*MATH 180 Calculus I (prerequisite for CIS 170)5</td> <td style="padding: 2px;">MATH 120 Calculus I (4)+1 5</td> </tr> <tr> <td style="padding: 2px;">*MATH 275 Discrete Mathematics.....4</td> <td style="padding: 2px;">MATH 205 Mathematical Structures for Comp Science 4</td> </tr> <tr> <td style="padding: 2px;">Computer Technology Requirement.....3</td> <td style="padding: 2px;">University Elective 3</td> </tr> <tr> <td style="padding: 2px;">Wellness Requirement (General Studies only).....0-3</td> <td style="padding: 2px;">University Elective 0-3</td> </tr> </table> | | CIS 170 "C" Programming.....3 | University Elective 3 | * CIS 171 Java Programming.....3 | COSC 111/112 Intro to Program (4)-1 3 | * CIS 271 Advanced Java.....4 | COSC 211/212 Programming Data Structures 4 | * Complete one course:.....3-4 | COSC 231 Internet Based Computing (3) 3-4 | CIS 122 Web Internet Technologies (3) or | | CIS 126 HTML/CSS Web Program (4) | | ¹ MATH 175 Precalculus (prerequisite for MATH 180)5 | MATH 112 Topics in Precalc Math (4)+1 5 | *MATH 180 Calculus I (prerequisite for CIS 170)5 | MATH 120 Calculus I (4)+1 5 | *MATH 275 Discrete Mathematics.....4 | MATH 205 Mathematical Structures for Comp Science 4 | Computer Technology Requirement.....3 | University Elective 3 | Wellness Requirement (General Studies only).....0-3 | University Elective 0-3 |
| CIS 170 "C" Programming.....3 | University Elective 3 | | | | | | | | | | | | | | | | | | | | | | |
| * CIS 171 Java Programming.....3 | COSC 111/112 Intro to Program (4)-1 3 | | | | | | | | | | | | | | | | | | | | | | |
| * CIS 271 Advanced Java.....4 | COSC 211/212 Programming Data Structures 4 | | | | | | | | | | | | | | | | | | | | | | |
| * Complete one course:.....3-4 | COSC 231 Internet Based Computing (3) 3-4 | | | | | | | | | | | | | | | | | | | | | | |
| CIS 122 Web Internet Technologies (3) or | | | | | | | | | | | | | | | | | | | | | | | |
| CIS 126 HTML/CSS Web Program (4) | | | | | | | | | | | | | | | | | | | | | | | |
| ¹ MATH 175 Precalculus (prerequisite for MATH 180)5 | MATH 112 Topics in Precalc Math (4)+1 5 | | | | | | | | | | | | | | | | | | | | | | |
| *MATH 180 Calculus I (prerequisite for CIS 170)5 | MATH 120 Calculus I (4)+1 5 | | | | | | | | | | | | | | | | | | | | | | |
| *MATH 275 Discrete Mathematics.....4 | MATH 205 Mathematical Structures for Comp Science 4 | | | | | | | | | | | | | | | | | | | | | | |
| Computer Technology Requirement.....3 | University Elective 3 | | | | | | | | | | | | | | | | | | | | | | |
| Wellness Requirement (General Studies only).....0-3 | University Elective 0-3 | | | | | | | | | | | | | | | | | | | | | | |
| EMU Requirements that May be Taken at HFC or EMU (11-29 credits) | | | | | | | | | | | | | | | | | | | | | | | |
| ² Open Electives.....11-29 Minor Requirements/University Electives..... 11-29 100-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 HFC:.....75-89 | Credits that transfer to EMU..... 75-89 | | | | | | | | | | | | | | | | | | | | | | |

*Required for EMU's Computer Science Major-Applied. If not transferred, must be completed at EMU.

¹ Prerequisites for MATH 180. If students initially place into Calculus I, MATH 115 and MATH 175 are not required.

² A minor of at least 20 credit hours is required for EMU's degree. See the EMU program advisor to choose a minor at EMU and to determine how many courses are needed and their transferability before completing electives at HFC.

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/trackingssystem/Enter.php

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Completion of the Computer Science Major – Applied at EMU

Major Requirements (29 credits)

Required Mathematics Course (3 credits)

STAT 360 Statistical Methods..... 3

Required Computer Science Courses (18 credits)

COSC 221 Computer Organization I..... 3

COSC 311 Algorithms and Data Structures..... 3

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 HFC if equivalent courses are identified. At least 6 hours toward the minor must be completed in EMU courses, at the 300 level or above. Consult an advisor from the minor department to determine requirements.

LBC Requirement (0-3 credits)

Students must complete one Learning Beyond the Classroom course or noncredit experience offered by EMU. Consult computer science advisor for options.

Credits at EMU: 35-49

Transfer Credits: 75-89

*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 (12-15 credits)

COSC 221 prereq: COSC 111..... 3

STAT 360 prereq: MATH 120..... 3

Minor Requirements..... 6

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

COSC Elective..... 4

Minor Requirement 6

Winter Semester (4-9 credits)

COSC 481W prereq: COSC 311..... 4

Minor Requirements..... 0-5

*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 HFC and EMU agree to accept transferrable courses from each other and from other regionally accredited institutions. HFC courses indicated with an * are required for EMU's Bachelor of Science 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 September 2014 will have until the end of August 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 39 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. HFC students will receive equal consideration with other students for course registration and financial aid.
6. Students are encouraged to contact the Computer Science Program Coordinator 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/trackingssystem/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 2012. Students who began this program prior to the new effective date have the option of using this articulation guide or continuing to 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 HFC will have an additional three years to be admitted to EMU under the terms of the agreement.

Contacts:

Henry Ford College

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