

**INFORMATION ASSURANCE & CYBER DEFENSE  
ARTICULATION AGREEMENT GUIDE**

Delta College – AAS in Computer Science and Information Technology - Cyber Security  
Eastern Michigan University – BS in Information Assurance

**Delta College Courses:****Eastern Michigan University Courses:****Michigan Transfer Agreement 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 major or minor requirements at Delta and/or EMU. Students who started before Fall 2014 may continue to follow the MACRAO Agreement until the end of summer semester 2019. For Delta courses approved to satisfy the MTA go to [Delta's website](#).

**1. A Course in English Composition**

ENG 111 College Composition I ..... 3      WRTG 120 University Elective ..... 3

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

ENG 112 or 113 College Composition II or Technical Comm ... 3      WRTG 121 or 324 University Elective ..... 3

**3. A Course in Mathematics**

\*MTH 208 Elementary Statistics ..... 4      STAT 170 Elementary Statistics (3)+1 ..... 4

**4. Two Natural Science courses from different disciplines**

Choose from the approved MTA list ..... 8      University Electives ..... 8

**5. Two Humanities courses from different disciplines**

PHL 210W Information Technology Ethics & Law ..... 2      PHIL 216 University Elective ..... 2

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

**6. Two Social Science courses from different disciplines**

POL 103W American Government ..... 3      PLSC 112 University Elective ..... 3

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

**If needed, complete additional courses from 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:

The courses in this list may also be used to satisfy an MTA area above: **Communication:** COM 245; **Natural Science:** BIO 110; **Humanities:** COM 245; EMB 229; ENG 228, 229, 269, 274, 277, 278; IHU 120, 202, 281; MUS 120; **Social Sciences:** GEO 113; HIS 215, 217, 225; POL 220, 221, 225, 241; SOC 215, 216, 231; SSI 120, 289

**Delta College Cyber Security Requirements (52 credits)**

CST 126 Unix/Linux Operating System.....	2	IA 000 University Elective.....	2
CST 128 Computer Hardware & Troubleshooting.....	4	IA 215 System Support and Troubleshoot (Elective) .....	4
*CST 133W Computer Concepts & Competencies.....	4	IS 215 <u>sub for Restricted Elective</u> .....	4
CST 150W Info Security Policies, Proc & Fundamentals .....	3	IA 000 University Elective.....	3
*CST 152 Implementing Network Security .....	3	IT 000 <u>sub for Restricted Elective</u> .....	3
*CST 153 Implementing Firewalls .....	3	IT 000 <u>sub for Restricted Elective</u> .....	3
1* CST 161 CISCO-Introduction to Networking.....	3	IA 110 Concepts of Network & Business Technology .....	3
*CST 163 Introduction to Windows Network Administration .....	3	IT 000 <u>sub for Restricted Elective</u> .....	3
*CST 164 CISCO - Routing & Switching Essentials .....	3	IA 150 Networking I .....	3
*CST 165 Linux Networking I.....	3	IA 212 Open Systems Platform/Network Admin.....	3
CST 250W Incident Response and Disaster Recovery .....	3	IA 000 University Elective.....	3
CST 252 Implementing Wireless Security.....	3	IA 000 University Elective .....	3
CST 260 CISCO - Scaling Networks.....	3	IA 000 University Elective.....	3
*CST 263 Advanced Microsoft Networking (CST Elective) .....	3	IA 244 Administration of Computer Systems.....	3
1* CST 266 Information Security .....	4	IA 103 Information Security Overview (3)+1.....	4
*CST 285 Network Intrusion Security Testing .....	3	IA 202 Risk and Vulnerability Analysis .....	3
LW Requirement .....	2	University Elective .....	2

**Credits at Delta: ..... 82      Credits that Transfer to EMU ..... 73**

\* Required for EMU's Information Assurance and Cyber Defense program. If not transferred, must be completed at EMU.

<sup>1</sup> A grade of "B-" or higher in CST 266 and CST161 (IA 103 and IA 110) is required for admission to the IACD program 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.

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Eastern Michigan University – **BS in Information Assurance**

**Completion of the Bachelor of Science in  
Information Assurance & Cyber Defense**

IA 103 and IA 110 (CST 266 and CST 161 at Delta) must be completed with a grade of "B-" or higher for admission to the IA major and to enroll in IA 300-level courses. All students must take at least 45 credits at the 300 level or above in the IA/CD program.

**Major Requirements (51 credits)**

**Required Courses (42 credits)**

LEGL 320	Cyber Law and Compliance.....	3
COSC 274	Introduction to Applied Cryptography .....	3
IA 322	Managing Security Projects.....	3
IA 329W	Policy Development in Info Assurance (GEWI) .....	3
IA 354	Networking II.....	3
IA 385	Database Management & Security.....	3
IA 400	Malware Analysis & Reverse Engineering.....	3
IA 427	Digital Forensics I.....	3
IA 445	Ethical Hacking and Offensive Security.....	3
IA 455	Incident Response.....	3
IA 462	Adv. Operating Systems Security & Admin .....	3
IA 473	Network Forensics & Analytics (was IA 430).....	3
IA 495	Capstone .....	3

**IA Restricted Electives (9 hours)**

IA 240	Intelligence Analysis (3)
<sup>1</sup> IA 387L4	Co-operative Education (GELB) (3)
IA 425	Cyber Crime Investigation I (3)
IA 428	Digital Forensics II (3)
IA 471	Data and Privacy (3)
IA 474	Applied Data Mining for IA (3)
IA 475	Adv Topics in Information Security (3)
IA 476	Enterprise Security Analytics (3)
Any IA, CIS, or COSC	300-level or higher (3)

<b>Total Credits at EMU .....</b>	<b>51</b>
<b>Transfer Credits.....</b>	<b>73</b>
<b>Credits to Graduate.....</b>	<b>124</b>

Sample Sequences for completing the program:  
*Courses may not be offered every semester. Meet with a program advisor to plan a program of study.*

**FALL START**

**Fall semester (12 credits)**

COSC 274	F Prereq: STAT 170, COSC 146 .....	3
LEGL 320	(may be taken in any semester) .....	3
IA 329W	FW Prereq: IA 202.....	3
IA 385	FW Prereq: IA 110.....	3

**Winter semester (12 credits)**

IA 354	W Prereq: IA 150 .....	3
IA 400	FW Prereq: COSC 146.....	3
IA 427	FW Prereq: IA 110.....	3
IA Restricted Elective.....		3

**Fall semester (12 credits)**

IA 322	F Prereq: IA 202 .....	3
IA 445	FW Prereq: IA 212 & 244 .....	3
IA 473	FW prereq: IA 427 .....	3
IA 495	F Prereq: IA 329, 244 & 322.....	3

**Winter semester (15 credits)**

IA 455	FW Prereq: IA 473.....	3
IA 462	W Prereq: IA 212 & 244.....	3
IA Restricted Elective.....		9

**WINTER START**

**Winter semester (15 credits)**

LEGL 320	(may be taken in any semester) .....	3
IA Restricted Elective.....		3
IA 329W	FW Prereq: IA 202.....	3
IA 385	FW Prereq: IA 110.....	6

**Fall semester (15 credits)**

COSC 274	F Prereq: STAT 170, COSC 146 .....	3
IA 322	F Prereq: IA 202 .....	3
IA 400	FW Prereq: COSC 146.....	3
IA 427	FW Prereq: IA 110.....	3

**Winter semester (12 credits)**

IA 354	W Prereq: IA 150 .....	3
IA 445	FW Prereq: IA 212 & 244 .....	3
IA 462	W Prereq: IA 212 & 244.....	3
IA 473	FW prereq: IA 427 .....	3

**Fall semester (12 credits)**

IA 455	FW Prereq: IA 473.....	3
IA 495	F Prereq: IA 329, 244 & 322.....	3
<sup>1</sup> IA 387L4	FW Prereq: IA 329 & 244 .....	3
IA Restricted Elective .....		3

<sup>1</sup> Satisfies EMU's Learning Beyond the Classroom requirement

NOTE: A minimum of 124 credits is required to graduate. If insufficient credits are transferred, students must take additional credits 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 Delta and EMU agree to accept transferable courses from each other and from other regionally accredited colleges. Delta courses indicated with an \* are required for EMU's BS in Information Assurance and Cyber Defense. 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. A grade of "C" or better (2.0 on a 4.0 scale) is required for courses to transfer to either institution.
4. Under this agreement, EMU will waive the 60-hour rule and require that a minimum of 45 credit hours must be completed at the four-year college level, with at least 30 credit hours at EMU, 15 hours of which must be in program requirements at the 300-level or above. Of the last 30 hours completed before graduation, a minimum of 10 hours must be in courses offered by EMU. A minimum of 124 credit hours, in EMU courses or accepted in transfer, is required for graduation.
5. Students must satisfy all admission requirements at the time of admission to EMU
  - a. Completion of IA 103 and IA 110 (CST 266 and CST 161 at Delta) with a grade of "B-" or higher
  - b. Submit transcripts of all colleges attended to [cot-isac@atari.emich.edu](mailto:cot-isac@atari.emich.edu) by October 1, February 1, or July 1
  - c. Attend a mandatory meeting with an IA/CD faculty member or designated COT advisor. Student will be contacted to schedule an appointment after receipt of application. Students may enroll in two IA 300-level courses in the semester they apply to the program.
  - d. Students must maintain a minimum GPA of 2.5
6. Students are encouraged to meet with the EMU Information Assurance and Cyber Defense advisor before completing an admission application to EMU. To facilitate advising and the evaluation of transcripts, [sign up for this articulation agreement](#) and bring a copy of this guide to all advising sessions.

**Effective Dates: September 1, 2018 until August 31, 2021.**

This is a renewal of an agreement made in September 2011. This agreement is consistent with the 2018-2019 catalog. Students have until summer 2026 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:**

**Delta College**

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