

**INFORMATION ASSURANCE & CYBER DEFENSE  
ARTICULATION GUIDE**

September 2019

Schoolcraft College – AAS in Cybersecurity  
Eastern Michigan University – BS in Information Assurance and Cyber Defense

**Schoolcraft College Courses:**

**Transfer to Eastern Michigan University as:**

**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 SC and/or EMU. For SC courses approved to satisfy the MTA go to Schoolcraft's website.

**1. A Course in English Composition**

ENG 101 English Composition 1 .....3      WRTG 120 University Elective ..... 3

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

ENG 102 English Composition 2 .....3      WRTG 121 Composition II ..... 3

**3. A Course in Mathematics**

\*MATH 122 Elementary Statistics (in place of 102, 113,126) 4      STAT 170 Elementary Statistics (3)+1 ..... 4

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

Choose from the approved MTA list .....7-8      University Elective ..... 7-8

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

Choose from the approved MTA list .....6      University Elective ..... 6

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

Choose from the approved MTA list .....6      University Electives ..... 6

**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:

**These courses also satisfy an MTA area:** **Natural Science:** BIOL 104; GEOG 212; **Humanities:** ENG 170, 275; HIST 138; HUM 151, 152, 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

**SC Cyber Security Program Requirements (47 credits)**

* CIS 129 Introduction to Programming Logic..... 3	COSC 000 <u>sub for COSC 146</u> ..... 3
* CIS 172 Network Security Fundamentals..... 3	ISAC 000 <u>sub for Restricted Elective</u> ..... 3
CIS 180 Spreadsheet Applications ..... 3	BMMT 000 University Elective..... 3
* CIS 250 Systems Development and Design..... 4	IS 000 <u>sub for Restricted Elective</u> ..... 4
* CIS 255 Introduction to Linux ..... 3	IA 212 Open Systems Platform and Network Admin..... 3
CNT 115 Cybersecurity Fundamentals ..... 3	ISAC 000 University Elective ..... 3
* CNT 180 Ethical Hacking and Systems Defense ..... 3	ISAC 000 <u>sub for Restricted Elective</u> ..... 3
* CNT 210 CCNA Networking 1 ..... 4	IT 110 Concepts of Network & Business Tech (3)+1 ..... 4
* CNT 220 CCNA Networking 2 ..... 4	IT 150 Networking I (3)+1 ..... 4
* CNT 250 Server Administration I (3) and	
* CNT 253 Server Administration 2 (Elective)(3)..... 6	IA 244 Administration of Computer Systems (3)+3 ..... 6
* CNT 260 Information Assurance and Security..... 3	IA 103 Information Security Overview ..... 3
* CNT 262 Perimeter Defense..... 3	IA 202 Risk-Vulnerability Analysis..... 3
CNT 264 Security Testing Methods ..... 3	ISAC 000 University Elective ..... 3
Choose Elective from SC Program Catalog ..... 3	University Elective ..... 3

**EMU Requirements That Can Be Taken at SC or EMU (8 credits)**

* CNT 230 CCNA Networking 3 (4) and	
* CNT 240 CCNA Networking 4 (4) ..... 8	IT 254 Networking II (3)+5 ..... 8

**Credits at SC: .....85      Credits that transfer to EMU..... 76**

\* 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 CIS 172 and CNT 260 (IA 110 and IA 103 at EMU) is required for admission to the IA 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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**Completion of the BS in Information Assurance & Cyber Defense**

IA 103 and IT 110 (CNT 260 and CNT 210 at SC) must be completed with a grade of “B-” or higher for admission to the IACD 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 IACD program.

**Major Requirements (48 credits)**

**Information Assurance Required Courses (36 credits).**

LEGL 320	Cyber Law and Compliance	3
COSC 274	Introduction to Applied Cryptography	3
IA 322	Managing Security Projects	3
<sup>1</sup> IA 329W	Policy Development in Info Assurance (GEWI)	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 (12 hours)**

*A maximum of 9 hours can be taken with an IA prefix.*

IA 240	Intelligence Analysis (3)
<sup>2</sup> IA 387L4	Co-operative Education (GELB) (3)
IA 425	Cyber Crime Investigation I (3)
IA 428	Digital Forensics II (3)
IA 471	Data Security 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)
IT 145	Task Automation for IT Admins (3)
IT 219	Introduction to Human-Computer Interaction (3)
IT 221	Web Server Administration and Development (3)
IT 256	Managing Virtualization and Cloud Computing (3)
ISAC 317	IoT and Embedded Systems Security (3)
ISAC 417	Modern Vehicle Technology & Cyber Security (3)
Any IA, CIS, or COSC 300-level or higher (3)	

**LBC Requirement (0-3 credits)**

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

<b>Total Credits at EMU</b>	<b>48-51</b>
<b>Transfer Credits</b>	<b>76</b>
<b>Credits to Graduate</b>	<b>124</b>

<sup>1</sup> Satisfies EMU's Writing Intensive requirement

<sup>2</sup> Satisfies EMU's Learning Beyond the Classroom requirement

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 (9 credits)**

LEGL 320	(may be taken in any semester)	3
COSC 274	FW	3
IA 329W	FW Pre-req: IA 202	3

**Winter semester (12 credits)**

IA 354	W Pre-req: IT 150	3
IA 385	FW Pre-req: IT 110	3
IA 400	FW Pre-req: COSC 146	3
IA 427	FW Pre-req: IT 110	3

**Fall semester (12 credits)**

IA 322	F Pre-req: IA 202	3
IA 445	FW Pre-req: IA 212 & 244	3
IA 473	FW pre-req: IA 427	3
IA 495	F Pre-req: IA 329, 244 & 322	3

**Winter semester (15 credits)**

<sup>1</sup> IA 387L4	FW Pre-req: IA 329 & 244	3
IA 455	FW Pre-req: IA 473	3
IA 462	W Pre-req: IA 212 & 244	3
IA Restricted Electives		6

**WINTER START**

**Winter semester (9 credits)**

LEGL 320	(may be taken in any semester)	3
COSC 274	FW	3
IA 329W	FW Pre-req: IA 202	3

**Fall semester (12 credits)**

IA 322	F Pre-req: IA 202	3
IA 385	FW Pre-req: IT 110	3
IA 400	FW Pre-req: COSC 146	3
IA 427	FW Pre-req: IT 110	3

**Winter semester (12 credits)**

IA 354	W Pre-req: IT 150	3
IA 445	FW Pre-req: IA 212 & 244	3
IA 462	W Pre-req: IA 212 & 244	3
IA 473	FW pre-req: IA 427	3

**Fall semester (15 credits)**

IA 455	FW Pre-req: IA 473	3
IA 495	F Pre-req: IA 329, 244 & 322	3
<sup>1</sup> IA 387L4	FW Pre-req: IA 329 & 244	3
IA Restricted Electives		6

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**Additional Information:**

1. Each institution will determine the satisfaction of their individual program and degree requirements. Both SC and EMU agree to accept transferable courses from each other and from other regionally accredited colleges. SC courses indicated with an \* are required for EMU’s Information Assurance & Cyber Defense major. 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 summer semester 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 (CNT 260 and CNT 210 at SC) 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 IACD 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, 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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