

**INFORMATION ASSURANCE & CYBER DEFENSE  
ARTICULATION GUIDE**

September 2018

Jackson College – AAS in Cyber Security

Eastern Michigan University – BS in Information Assurance and Cyber Defense

**Jackson College**

**Eastern Michigan University**

**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 JC and/or EMU. For JC courses approved to satisfy the MTA go to [Jackson's website](#).

**1. A Course in English Composition**

ENG 131 Writing Experience I (GEO 1) .....3      WRTG 121 Composition II ..... 3

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

COM 240 Interpersonal Communication (GEO 2) .....3      CTAC 227 University Elective ..... 3

**3. A Course in Mathematics**

\*MAT 133 Intro to Probability & Statistics (GEO 3).....4      STAT 170 Elementary Statistics (3) +1 ..... 4

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

Choose from the approved MTA and GEO 4 list .....7-8      University Elective ..... 7-8

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

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

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

Choose from the approved MTA and GEO 5 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 and JC GEO 7: Complete one course from the following list:**

**These courses also satisfy an MTA area: Humanities:** ENG 236, 249, 257; **MUS** 130; **Social Sciences:** ANT 131; GEO 132; SOC 236

**JC Cyber Security Program Requirements (37 credits)**

*CNS 101 Network Fundamentals/Network+ .....4	IT 110 Conc of Network & Business Tech (3) +1 (Pr.IA110)4
*CNS 106 Routing Protocols and Concepts .....3	IT 150 Networking I (Previously IA 150).....3
*CNS 121 Microsoft Networking Client I .....3	ISAC 000 sub for restricted elective .....3
*CNS 123 Microsoft Networking Server I (3) <b>AND</b>	
*CNS 124 Microsoft Networking Server II (EMU req) (3).....6	IA 244 Administration of Computer Systems.....6
*CNS 131 Linux Administration I .....3	IA 212 Open Systems Platform & Network Admin .....3
*CNS 141 Wireless Networking .....3	ISAC 000 sub for restricted elective .....3
*CNS 201 Network Security/Security+ .....3	IA 103 Information Security Overview .....3
*CNS 210 Python Scripting and Security.....3	ISAC 000 sub for COSC 146.....3
CNS 233 Hacker Techniques & Incident Handling.....3	ISAC 000 University Elective .....3
CNS 235 Packet Analysis & Network Forensics .....3	ISAC 000 University Elective .....3
CNS 245 Internship .....3	ISAC 000 University Elective .....3

**EMU IACD Requirements that may be taken at JC or at EMU (9 credits)**

*CNS 221 Securing Microsoft Networks .....3	IA 202 Risk and Vulnerability Analysis .....3
*CNS 128 Powershell Scripting for Network Admin.....3	ISAC 000 sub for restricted elective .....3
*CIS 158 Programming Logic.....3	COSC 000 sub for restricted elective .....3

**Maximum Credits at JC: .....76      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 CNS 101 and CNS 201(IT 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 Bachelor of Science in**

**Information Assurance & Cyber Defense**

IA 103 and IA 110 (CNS 101 and CNS 201at JC) 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 (48 credits)**

**Information Assurance Required Courses (39 credits).**

LEGL 320	Cyber Law and Compliance	3
COSC 274	Intro 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
IT 254	Networking II (Previously IA 354)	3

**IA Restricted Electives (9 hours)**

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

IA 440	Intelligence Analysis I (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	Intro to Human-Computer Interaction (3)
IT 221	Web Server Administration and Development (3)
IT 256	Managing Virtualization & Cloud Computing (3)
IT 375	Wireless Networks Administration (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. IA 387L4 will apply toward this requirement.

<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>

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 Prereq: IA 202	3

**Winter semester (12 credits)**

IT 254	W Prereq: IT 150	3
IA 385	FW Prereq: IT 110	3
IA 400	FW Prereq: COSC 146	3
IA 427	FW Prereq: IT 110	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)**

<sup>1</sup> IA 387L4	FW Prereq: IA 329 & 244	3
IA 455	FW Prereq: IA 473	3
IA 462	W Prereq: 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 Prereq: IA 202	3

**Fall semester (12 credits)**

IA 322	F Prereq: IA 202	3
IA 385	FW Prereq: IT 110	3
IA 400	FW Prereq: COSC 146	3
IA 427	FW Prereq: IT 110	3

**Winter semester (12 credits)**

IT 254	W Prereq: IT 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 (15 credits)**

IA 455	F 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 Electives		6

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

<sup>2</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 JC and EMU agree to accept transferable courses from each other and from other regionally accredited colleges. JC 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. Students who enrolled in college prior to fall semester 2014 will have until the end of summer semester 2019 to complete the MACRAO agreement. 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 IT 110 (CNS 101 and CNS 201 at JC) 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 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 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:**

**Jackson College**  
Student Services

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