

**EASTERN MICHIGAN UNIVERSITY
ARTICULATION GUIDE**

September 2009

**Washtenaw Community College – AAS in Computer Systems Security
Eastern Michigan University – Bachelor of Science in Information Assurance
Washtenaw Community College Eastern Michigan University**

MACRAO Requirements	(32-33 credits)	(32-33 credits)	
1. English Writing Requirement	(7 credits)	(7 credits)	
ENG 111 Composition I	4	ENG 121 English Composition (3)+1	4
ENG 226 Composition II	3	ENGL 225 Writing In a Changing World.....	3
2. Math/Science Requirement	(8 credits)	(8 credits)	
*1 MATH 160 Basic Statistics	4	MATH 170 Elem Statistics or (3)+1	4
Complete one lab science course:.....	4	One course:.....	4
Choose from courses approved by WCC to satisfy the: MACRAO lab science requirement.		Courses may transfer as equivalent courses, General Education credit, or general transfer credit	
3. Humanities Requirement See note below	(8-9 credits)	(8-9 credits)	
* COM 102 Interpersonal Communication.....	3	CTAC 227 Interpersonal Communication.....	3
(satisfies WCC's speech requirement)			
Complete two courses (one must be other than speech) :5-6		Two courses:.....	5-6
Choose from courses approved by WCC to satisfy The MACRAO humanities requirement.		Courses may transfer as equivalent courses, General Education transfer credit, or general transfer credit.	
4. Social Science Requirement See note below	(9 credits)	(9 credits)	
Complete three courses from at least two disciplines:	9	Three courses:	9
Choose from courses approved by WCC to satisfy The MACRAO humanities requirement.		Courses may transfer as equivalent courses, General Education transfer credit, or general transfer credit.	
¹NOTE: In completing the Humanities or Social Science Requirement, choose one course from the following to satisfy EMU's Perspectives on a Diverse World requirement: Social Science: Humanities: ART 143, 150; COM 225; DAN 180; ENG 181, 187, 213, 214, 224, 242, 281; HUM 145, 150, 170, 175; MUS 180; Natural Science: ENV 101; Social Science: ANT 201; ECO 280; GEO 101; HST 123, 150, 210, 230, 235, 240, 270; PLS 211; PSY 107; SOC 205			
WCC Major/Area Requirements		(45 credits)	
* CIS 121 Linux/UNIX I: Fundamentals	3	NITA 212 Open Source Platform / Network Admin.....	3
* CNT 206 Internetworking I - Fundamentals.....	4	NITA 210 Concepts of Network & Business Tech (3)+1 ...	4
* CNT 211 Admin & Managing Microsoft Win Server (4) and *[CIS 206 (4) OR CNT 251 (4)].....	8	NITA 344 Admin of Computer Systems (3)+5	8
CNT 216 Internetworking II - Routers.....	4	NITA 000 General Transfer Credit.....	4
CSS 180 Computer Security I	4	NITA 000 General Transfer Credit.....	4
* CSS 200 Computer Security II	4	IA 103 Information Assurance Overview(3)+1	4
CSS 205 Computer Security III	4	NITA 000 General Transfer Credit.....	4
CSS 210 Computer Security IV	4	NITA 000 General Transfer Credit.....	4
CSS 212 Computer Security V	4	NITA 000 General Transfer Credit.....	4
* CSS 220 Computer Security VI	4	IA 202 Risk and Vulnerability (3)+1.....	4
* CSS 272 Computer Security VIII.....	2	IA 325 Cyber Crime Investigation	3
EMU Requirements (may be taken at WCC or EMU)		(14 credits)	
*BMG 207 Business Communication	3	MGMT 202 Business Communication.....	3
* CIS 100 Introduction to Computers.....	3	COSC 101 Com Sci Conc & App (sub for COSC 105)....	3
* CPS 161 Intro to Programming with Java	4	COSC 111 Intro to Programming (3)+1.....	4
* CPS 261 Programming Data Structures in Java	4	COSC 211 Programming Data Structures (3)+1	4
Credits at WCC:	91-92	Credits that transfer to EMU	91-92

*Required for EMU's Information Assurance program.

¹ MATH 160 should be completed at WCC to satisfy EMU's Quantitative Reasoning Requirement. If completed at EMU, MATH 110 will also be required unless waived by ACT/SAT or math placement score.

Note: Courses that transfer as general transfer credit or university electives are not required for EMU's program, and may be substituted.

Community College Relations

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Copies of this guide are available on-line at: <http://www.emich.edu/ccr/artguide.php>

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**Completion of the Information Assurance
Program at EMU**

Major Requirements (33-36 credits)

Foundation Course: (3 credits)
STS 300W Research & Writing: Tech Perspective 3

Concentration Requirements: (30-33 credits)

Complete one of the concentrations below:

Applied Information Assurance: (30 credits)

COSC 374 Applied Cryptography 3
IA 327 Computer Forensics I 3
IA 329 Policy Development in Info Security 3
IA 415 Intro to Research in Information Assurance 3
¹ IA 416L Applied Research Project 3
IS 413 Information Tech Infrastructure & Security 3
LEGL 413 The Law and the Internet 3
NITA 412 Linux Security Admin 3
NITA 422 End-user Systems: Planning & Design 3
Complete one course: 3
 BMMT 496 Records Admin Using Databases (3)
 IS 380 Introduction to Databases (3)

OR

Information Assurance Management: (33 credits)

IA 329 Policy Development in Info Sec 3
IS 350 Enterprise Resource Planning 3
IS 413 Information Tech Infrastructure & Security 3
IS 425 Project Management 3
LEGL 413 Cyber Space Law 3
MGMT 386 Organizational Behavior and Theory 3
MGMT 403 Managerial Communication: Theory & Appl 3
MGMT 480 Management Responsibility and Ethics 3
NITA 422 End User Systems: Planning and Design 3
¹ Internship in MGMT, IS, CS, or STS 6

¹Satisfies EMU's Learning beyond the Classroom requirement .

OR

Information Assurance Encryption (33 credits)

COSC 314 Computational Discrete Structures 3
IA 415 Intro to Research in Information Assurance 3
¹ IA 416L Applied Research Project 3
IS 413 Information Tech Infrastructure & Security 3
LEGL 413 Cyber Space Law 3
MATH 120 Calculus I 4
MATH 121 Calculus II 4
MATH 205 Math Structures for Computer Science 4
MATH 319 Mathematical Modeling 3
MATH 409 Cryptography 3

Credits at EMU: 33-36

Credits to Graduate: 124 -128

A minimum of 124 credits is required to graduate

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Additional Information:

1. In completing the coordinated program of study, as indicated on the preceding guides, substitutions should be made with the guidance of the EMU and WCC Program Advisors to assure that program and graduation requirements will be satisfied at each institution. Each institution will be responsible for determining if their requirements are satisfied.
2. Students whose transcripts are endorsed as “MACRAO Satisfied” by the community college will be required to meet EMU’s three general education requirements, indicated on this guide, and listed below. These requirements may be completed at the most appropriate time for the student whether before or after admission to EMU.
 - a) an approved course in Quantitative Reasoning: [MTH 160 at WCC]
 - b) a course in Perspectives on a Diverse World: [**Humanities:** ART 143, 150; COM 225; DAN 180; ENG 181, 187, 213, 214, 224, 242, 281; HUM 145, 150, 170, 175; MUS 180; **Natural Science:** ENV 101; **Social Science:** ANT 201; ECO 280; GEO 101; HST 123, 150, 210, 230, 235, 240, 270; PLS 211; PSY 107; SOC 205 at WCC]
 - c) a Learning beyond the Classroom (LBC) course or experience offered by EMU: [an internship or IA 416L at EMU]

To use MACRAO, students should request a MACRAO evaluation of their transcript in the WCC Records Office. Students who do not satisfy MACRAO will have to complete EMU’s general education requirements as listed in the EMU undergraduate catalog.

3. Only courses with a grade of “C” or better (2.0 on a 4.0 scale) will be accepted for transfer to EMU.
4. Under this agreement, EMU will waive the 60-hour rule and require that a minimum of 30 credit hours must be completed in courses offered by EMU, 15 hours of which must be in program requirements at the 300-level or above. Although 33 to 39 hours at EMU are listed on the attached guides, it may be possible to complete just 30 credits at EMU, if additional courses are approved for transfer from a two-year or four-year college. 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, completed in-residence or accepted in transfer, is required for graduation.
5. Students must meet all admission requirements at the time of admission to EMU, including submitting transcripts from all previously attended colleges.
6. Students are encouraged to meet with the EMU Information Assurance Advisor early, before completing an admission application to EMU. A copy of the articulation guide should be included with the application to EMU and brought to all advising sessions. Copies of this agreement are available at www.emich.edu/ccr/artguide.php

Effective Dates: September 1, 2009 until August 31, 2012.

If this agreement is not renewed at the end of the effective period, students will have an additional three years to be admitted to EMU under the terms of the agreement. Students who began the program prior to the effective period may use this agreement to the extent that courses completed are consistent with the agreement.

Contacts:

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