

EASTERN MICHIGAN UNIVERSITY
ARTICULATION GUIDE

February 2010
Updated: May 2010

Macomb Community College – AAS in Information Technology—Programming for Electronic Games
Eastern Michigan University – BS in Simulation, Animation & Gaming

Macomb College

Eastern Michigan University

MACRAO Requirements	(30-32 credits)	(30-32 credits)	
1. English Writing Requirement	(6-8 credits)	(6-8 credits)	
Complete a two-course sequence:.....	6-8	Two courses:6-8	
ENGL-1180 & 1190 Communication I & II (8)		ENGL 120 & 121 Composition I & II (6) +2	
ENGL-1210 & 1220 Composition I & II (6)		ENGL 120 & 121 Composition I & II (6)	
2. Math/Science Requirement	(8 credits)	(8 credits)	
¹ MATH 1410 College Algebra (Complete at Macomb CC).....	4	MATH 105 College Algebra.....	4
² PHYS 1180 Introduction to Physics.....	4	PHY 221 Mechanics, Sound, and Heat.....	4
3. Humanities Requirement (see note below)	(8 credits)	(8 credits)	
* ARTT 1060 Basic Drawing 1.....	3	ART 123 Drawing I.....	3
* ARTT 1360 Color & Design 1.....	3	ART 122 Two-Dimensional Design.....	3
Complete a minimum of 2 credits from a discipline below.....	2	A minimum of 2 credits.....	2
Creative Writing, Foreign Language, Humanities, Literature, Music, or Philosophy		Courses may transfer as equivalent courses, General Education credit, or general transfer credit.	
4. Social Science Requirement (see note below)	(8 credits)	(8 credits)	
Complete at least 8 credit hours from different disciplines:.....	8	Two or more courses.....	8
Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology, or Social Science		Courses will transfer as equivalent courses or General Education transfer credit or general transfer credit	
NOTE: In completing the Humanities or Social Science Requirement above, choose one course from the following to satisfy EMU's Perspectives on a Diverse World requirement: Humanities: ENGL 2800, 2810; HUMN 1700, 1270, 2000; INTL 2000, 2300; Social Sciences: ANTH 1000; GEOG 2000; HIST 1700, 2420, 2520, 2650; INTL 2010, 2500, 2700; POLS 1600; SOSC 2010			

Macomb CC Program Requirements (47 credits)	(47 credits)
Complete one course:.....	4
ITCS 1010 Computer & Information Process Princ (4) or ITCS 2335 Foun of Business Information Technology (4)	
* ITCS 1950 Intro to Game Development.....	4
ITCS 2000 Game Programming in Direct X with C++.....	4
ITCS 2050 Adv Game Development.....	4
ITCS 2530 C++ Programming 1.....	4
ITWP 1000 Introduction to Web Programming.....	3
MACA 1055 Digital Layout : Adobe.....	4
* MACA 1160 Previsualization.....	4
* MACA 1320 Introduction to Photoshop.....	4
* MACA-2510 Introduction to 3D.....	4
* MACA-2720 Flash Multimedia I.....	4
BCOM 2050 Business Communications.....	4
One course.....	4
IS 215 End-user Computing (University Elec) or IS 215 End-user Computing (University Elec)	
SAG 105 Intro to Simulation, Animation, & Gaming (3)+1.....	4
COSC 000 General Transfer Credit.....	4
SAG 000 General Transfer Credit.....	4
COSC 246 Programming in C++ (University Elective).....	4
CMT 436 Electronic Publishing Technology (University Elec).....	3
CMT 000 General Transfer Credit.....	4
SAG 245 Story Development (3)+1.....	4
CMT 205 Digital Photography (3)+1.....	4
SAG 285 Studio I – Simulation (3)+1.....	4
SAG 235 Flash I (3)+1.....	4
MGMT 202 Business Communication (University Elective).....	4

EMU Requirements that May be Taken at Macomb or EMU	(22-26 credits)
* ARTT 1370 Color and Design 2.....	3
* ITCS-2590 Java 1.....	4
* ITCS-2620 Java 2.....	3
* MACA 1200 Digital Illustration.....	4
* MACA-1400 Introduction to Digital Video.....	4
* PRDE 1000 Fundamentals of Design.....	4
³ MATH 1760 Anal Geom & Calculus (for Cognate B Students).....	0-4
ART 000 (sub for ART 131 Three-Dimensional Design).....	3
COSC 111 Intro to Programming (3)+1.....	4
COSC 211 Programming Data Structures.....	3
CMT 131 Intro to Comp Graphic Systems (3) +1.....	4
CTAT 332 (sub CTAT 141 Audio & Video Prod (3) +1.....	4
SAG 175 Graphics for Simulation I (3) +1.....	4
MATH 120 Calculus I.....	0-4

Credits at Macomb:.....	99	Credits that transfer to EMU.....	99
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* Required for EMU's Simulation, Animation, and Gaming program.
¹ MATH 1410 must be completed at Macomb to satisfy EMU's Quantitative Reasoning Requirement. If completed at EMU, MATH 110 will also be required, unless waived by an ACT/SAT or Math Placement test.
² PHY 116 (PHY 221 at EMU) is a pre-requisite for COSC 215 and (SAG 470 in Cognate A).
³ MATH 120 is a pre-requisite for MATH 205 in Cognate B.
 Note: EMU will accept substitutions for courses that transfer as university electives or general transfer credit.

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<p><u>Completion of EMU’s Simulation, Animation & Gaming Program</u></p> <p>Major Requirements (36-41 credits)</p> <p>Required Courses (18 credits)</p> <p>COSC 156 Introduction to Alice..... 3</p> <p>COSC 215 Scientific Simulation..... 3</p> <p>MGMT 386 Organization behavior & Theory 3</p> <p>MGMT 486 Organizational Change & Team Building 3</p> <p>STS 300W Researching & Writing Techniques..... 3</p> <p>SAG 225 Graphics for Simulation II..... 3</p> <p>Cognate options</p> <p>Choose a cognate option A or B below:</p> <p>Option A Graphics and Design (18-21 credits)</p> <p>SAG 275 Texturing & Mapping..... 3</p> <p>SAG 305 Environmental Design..... 3</p> <p>SAG 355 Lighting & Camera Techniques..... 3</p> <p>SAG 375 Studio II – Deconstructing Elements..... 3</p> <p>SAG 470 Simulation & Animation Dynamics..... 3</p> <p>SAG/COSC 485 Capstone..... 3</p> <p>¹LBC Requirement (See advisor for options)..... 0-3</p> <p>Option B Programming (23 credits)</p> <p>COSC 221 Computer Organization I..... 3</p> <p>COSC 311 Algorithms and Data Structures..... 3</p> <p>COSC 456 Computer Graphics..... 3</p> <p>COSC 457 Computer Game Programming..... 3</p> <p>COSC 461 Heuristic Programming..... 3</p> <p>COSC 481W Software Engineering and Senior Project.. 3</p> <p>¹COSC 486 Coop. Education in Computer Science..... 1</p> <p>MATH 205 Mathematical Structures for Comp Sci..... 4</p> <p>Minimum Credits at EMU:..... 36-41</p> <p>*Credits to Graduate: 135-140</p>	<p>Suggested sequence for completing the program:</p> <p>All Students</p> <p>Semester 1 (15 credits)</p> <p>COSC 156 Introduction to Alice 3</p> <p>COSC 215 Scientific Simulation..... 3</p> <p>MGMT 386 Organization behavior & Theory 3</p> <p>STS 300W Researching & Writing Techniques..... 3</p> <p>SAG 225 Graphics for Simulation II..... 3</p> <p>Cognate A Students Only</p> <p>Semester 2 (15 credits)</p> <p>MGMT 486 Organizational Change & Team Building..... 3</p> <p>SAG 275 Texturing & Mapping..... 3</p> <p>SAG 305 Environmental Design..... 3</p> <p>SAG 470 Simulation & Animation Dynamics..... 3</p> <p>SAG 375 Studio II – Deconstructing Elements..... 3</p> <p>Semester 3 (6-9 credits)</p> <p>SAG 355 Lighting & Camera Techniques..... 3</p> <p>SAG/COSC 485 Capstone..... 3</p> <p>LBC Requirement..... 0-3</p> <p>Cognate B Students Only</p> <p>Semester 2 (6 credits)</p> <p>MGMT 486 Organizational Change & Team Building..... 3</p> <p>COSC 221 Computer Organization I..... 3</p> <p>Semester 3 (8 credits)</p> <p>COSC 311 Algorithms and Data Structures..... 3</p> <p>¹COSC 486 Coop. Education in Computer Science..... 1</p> <p>MATH 205 Mathematical Structures for Comp Sci..... 4</p> <p>Semester 4 (12 credits)</p> <p>COSC 456 Computer Graphics..... 3</p> <p>COSC 457 Computer Game Programming..... 3</p> <p>COSC 461 Heuristic Programming..... 3</p> <p>COSC 481W Software Engineering and Senior Project..... 3</p>
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¹ Satisfies EMU's LBC requirement

* A minimum of 124 credits is required to graduate. If a student does not transfer enough credits to complete a minimum total of 124 credits, additional credits will be required at EMU.

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Additional Information:

1. In completing the coordinated program of study for this articulation agreement, course substitutions may be made with the guidance of the advisors (indicated below) at both institutions to assure that all requirements are satisfied. Courses indicated with an * are required for EMU's Simulation, Animation & Gaming Program.
2. Students whose transcripts are endorsed as "MACRAO Satisfied" will only be required to meet three of EMU's general education requirements, noted on the articulation guide and listed below. These requirements may be completed, as listed in the guide, at the most appropriate time for the student whether before or after admission to EMU.
 - a) an approved course in Quantitative Reasoning: [MATH 1410 at Macomb]
 - b) an approved course in Global Awareness or US Diversity: [Humanities: ENGL 2800, 2810; HUMN 1700, 1270, 2000; INTL 2000, 2300; Social Sciences: ANTH 1000; GEOG 2000; HIST 1700, 2420, 2520, 2650; INTL 2010, 2500, 2700; POLS 1600; SOSOC 2010 at Macomb]
 - c) an approved Learning Beyond the Classroom course or experience offered by EMU: [see EMU Program Coordinator for options.]

To use MACRAO, students should request a MACRAO evaluation of their transcript from the community college Student Records or Registrar's Office. Students who do not satisfy MACRAO will have to satisfy EMU's general education requirements as listed in the 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 at EMU, 15 hours of which must be in program requirements at the 300-level or above. Of the last 30 hours completed before graduating, a minimum of 10 credit 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 application for admission to EMU, including submitting transcripts from all previously attended colleges. Macomb students will receive equal consideration with other students for course registration and financial aid.
6. Students are encouraged to contact the Simulation, Animation & Gaming Program Coordinator early, before applying to EMU. To facilitate the evaluation of transcripts, students should indicate they are using this articulation agreement on their EMU admission application and should bring a copy of this guide to all advising sessions. Copies of the articulation guide are available on EMU's webpage at www.emich.edu/ccr/artguide.htm.

Effective Dates: February 1, 2010 until January 31, 2013.

If this agreement is not renewed at the end of the effective period, students who have already begun the program at MCC will have an additional three years to be admitted to EMU under the terms of this agreement. Students, who began MCC's program prior to the effective date, may use this agreement.

Contacts:

Macomb College
Robert Kansa, Associate Dean, IT Programs
South Campus, C335, 586.445.7303
kansar@macomb.edu

Eastern Michigan University
Pamela Speelman, Professor
122 Sill Hall, 734.487.1161
pspeelman@emich.edu