



STUDENT NAME \_\_\_\_\_ DATE \_\_\_\_\_

**Computer Information Systems A.A.S. at Harford Community College to  
B.S. IN COMPUTER AND INFORMATION SCIENCE AT UMUC**

This worksheet is designed to help you plan and track your progress toward your degrees. For full course descriptions, please refer to the current undergraduate *Catalog*.

**Courses taken at Harford Community College**

*Changes in recommended courses may affect other elements of the degree plan. Lower level equivalents of UMUC upper level courses fulfill content requirements but not upper-level minimum credit requirements*

 UMUC  
Equivalent  
Course

GENERAL EDUCATION REQUIREMENTS (GenEd) (22-23 credits)		
WRTG 101 Writing GenEd	ENG 101 English Composition (3)	WRTG 101
Mathematics GenEd	MATH 101, 109, 111, 203, or 207 (3-4)	
Biological and physical science with lab GenEd	Biological/Physical Lab Science elective (4)	
English Writing GenEd	ENG 209 Technical Writing (3)	WRTG 293
First arts and humanities GenEd	Arts/Humanities elective (3)	
First social and behavioral sciences GenEd	PSY 101 or SOC 101 <i>any GB except HIST (3) Recommended Behavioral/Social Science elective. If not completed in elsewhere, Harford diversity requirement may be fulfilled here</i>	PSYC 100 or SOCY 100
Second arts and humanities GenEd	ART 201, ART 202, HIST 101, HIST 102, HIST 103, HIST 104, HIST 202, HIST 207, HIST 208 (3) <i>Recommended General Education elective to meet UMUC historic requirement and meet Harford diversity requirement</i>	
INTERDISCIPLINARY AND EMERGING ISSUES (5 credits)		
CIS 102 Introduction to Information Science (3)	<i>First computing GenEd at UMUC. Prerequisite for major courses</i>	IFSM 201
PE Fitness elective (1) and PE elective (1)		
COMPUTER INFORMATION SYSTEMS RELATED COURSES (35-38 credits)		
ACCT 101 Accounting Principles I (3)		ACCT 220
ACCT 102 Accounting Principles II (3)		ACCT 221
CIS 111 or CIS 205 (4)		CMIS 140 or CMST 306
CIS 115 Fundamentals of Programming (3)	<i>Second computing GenEd at UMUC. Prerequisite for major courses</i>	CMIS 102
Software elective (3-4)		
CIS 104 or CIS 135 (3)		
CIS 203 Computer Systems and Procedures (3)		IFSM 202
◆ CIS 221 C++ Programming Language (4)	<i>Recommended course. Supplemental major course</i>	◆ CMIS 315
CIS 273 Cooperative Education or CSI/CIS elective (3-4)		
◆ CIS 214 Java Programming Language (3)	<i>Recommended CSI/CIS Programming Language elective. First course in Programming Language sequence for major. Prerequisite to second course in sequence</i>	◆ CMIS 141
CSI/CIS Elective (3-4)		
<b>Credits transferred: 62-66 credits</b>		

**SEQUENCE at UMUC**

Courses are listed in the order in which students should take them.  
Changes in courses and order may affect other elements of the degree plan.

**NOTES**

**ADDITIONAL REQUIRED GENERAL EDUCATION COURSES FOR DEGREE (9 credits)** *If requirement is completed in degree at community college, these credits may be used for electives*

Biological and physical sciences GenEd	BIOL 301 or NSCI 362 (3) <i>Or other 3-credit upper-level biological and physical science</i>	UL
Speech/writing GenEd	WRTG 390 (3) <i>Or other upper-level writing or speech GenEd course</i>	UL
Second social and behavioral sciences GenEd	ANTH 344 (3) <i>Or other upper-level social and behavioral sciences GenEd course</i>	UL

**EMERGING ISSUES (1 credit)**

LIBS 150 (1) *Required GenEd course*

**ADDITIONAL REQUIRED COURSES FOR MAJOR AND DEGREE (24 credits)**

◆ CMIS 170 or CMIS 111 (3) <i>Required introductory major course</i>	
◆ CMIS 242 (3) <i>Second course in programming language sequence for major. Choose based upon first programming language course selected. If student wishes to complete different sequence he/she will have to complete both programming courses at UMUC.</i>	
◆ CMIS 320 (3) <i>Required core course for major</i>	UL
WRTG 393 (3) <i>Or other upper-level advanced writing GenEd course</i>	UL
◆ CMIS 330 (3) <i>Required core course for major</i>	UL
◆ CMIS 310 (3) <i>Or other supplemental major course (CMIS 255 or 325)</i>	UL
◆ CMIS 420 (3) <i>Or other 400-level CMIS course except CMIS 486A/B</i>	UL
◆ CMIS 485 (3) <i>Or any other 400-level CMIS course except CMIS 486A/B</i>	UL

**CAPSTONE COURSE FOR MAJOR (3 credits)** *To be taken after all other courses for the major*

◆ CMSC 495 (3) <i>Required capstone course for major</i>	UL
--	----

**MINOR OR ELECTIVES (15 credits, at least 9 credits upper-level for minor)**

See requirements of individual minor. Recommended minor: computing	UL
	UL
	UL
	UL
	UL

**ADDITIONAL ELECTIVES (2-6 credits)** *Complete in last 60 credits along with major and minor courses.*


**TOTAL: 120 CREDITS**

**CHECKLIST FOR FULFILLMENT OF DEGREE REQUIREMENTS** See catalog for overview of all requirements.

<input type="checkbox"/> 30 credits at UMUC, including at least half of the major and minor and 15 upper level credits. <input type="checkbox"/> 45 upper-level credits, including half the credit for the major and the minor. <input type="checkbox"/> All required courses <u>and</u> minimum number of credits for major and minor. <input type="checkbox"/> Prerequisites for major and minor courses, if needed.	<input type="checkbox"/> All General Education Requirements. <input type="checkbox"/> Grade of C or better in all courses for the major and minor. <input type="checkbox"/> Overall GPA of at least 2.0. <input type="checkbox"/> At least half the credit for the major earned through graded coursework. <input type="checkbox"/> Total 120 credits.
---	--

NOTES: