Computer Science AS (CMPS)

Catalog: 2016-2017 **Effective Date: 9/01/2015**

CR	COURSE	COURSE TITLE	SUNY GEN ED	TR	SEMESTER			
1-4	HRD 100, HRD 100A or HRD 110	FRESHMAN EXPERIENCE						
3	ENG 101 or ENG 100A & B	*Introduction to College Writing* or *Writing Reading Workshop A/B*	GEBC					
3	SUNY GEN ED Basic Communication ENG 102, ENG 103, ENG 104, ENG 105, ENG 106, ENG 107, ENG 108, ENG 109 or ENG 110		GEBC					
4	MAT 131	*Calculus I*	GEMA					
3-4	SUNY GEN ED Natural Science lab science	EGR 105 *Engineering Physics I* or PHY 111 *General Physics I* recommended	GENS					
3	SUNY GEN ED Mathematics or SUNY GEN ED Natural Science	MAT 132 *Calculus II* recommended	GEMA GENS					
2	Any PED activity course, AVS 101, AVS 102, BIO 115, HED 103, HED 104, HED 108, NTR 101, NTR 111, or PED 172 (Note: PED 105, PED 106, PED 206, PED 210, PED 211, and PED 212 do not fulfill this requirement)	HEALTH AND WELLNESS						
3	SUNY GEN ED Western Civilization HIS 100, HIS 101 or HIS 102		GEWC					
3	SUNY GEN ED American History HIS 103 or HIS 104		GEAH					
3	SUNY GEN ED Social Science		GESS					
3	SUNY GEN ED The Arts, SUNY GEN ED Foreign Language or SUNY GEN ED Humanities		GETA GEFL GEHU					
3	CIS 143 (Prereq Required)	*Introduction to Programming*						
3	CIS 144 (Prereq Required.)	*Intermediate Programming in a Windows Environment*						
3	CIS 150 (Prereq Required)	*Topics in Computing*						
4	CIS 243 (Prereq Required)	*Data Structures and Objects in C++*						
3	CIS 244 (Spring only - Prereq Required)	*Computer Systems and Programming*						
3	MAT 129	*Discrete Mathematics*						
3-4	Choose 1 (Prereq Required) from: CIS 131, CIS 151,CIS 222,CIS 237, MAT 132, MAT 231, MAT 220 or MAT 223 (Fall Only)	COMPUTER SCIENCE or MATHEMATICS ELECTIVE						
6	Liberal Arts and Sciences (Note: At least 2 credits must be from SUNY GEN ED Knowledge Areas)							
5	Electives							
64	**Minimum credits required for graduation**							

Note: Please review the back of this form for additional information.

Computer Science AS Degree Tips Sheet

The Computer Science AS degree (CMPS) is designed to provide the first two years of a rigorous four year program in Computer Science. Students who are interested in a two year career training program should consider the Information Technology AAS or Information Technology-Computer Networking AAS degrees instead.

- Prerequisites for all required Math courses and Computer Science courses are enforced.

- A student that enters the program without the necessary math prerequisite (MAT 108 or appropriate placement test score) needs to take the necessary math prerequisite before they consider taking CIS 143 (the 1st course in a four course (semester) sequence). These students should be encouraged to take CIS 122 (can be used in the degree sheet as a free elective) while they are catching up on their math prerequisites.

- The CMPS degree requires math up through Calculus I (MAT 131) but most transfer schools require up through at least Calculus II and some require up through Calculus III. CMPS majors should check as soon as possible with their transfer school about their Calculus requirement. RPI transfers need to take up through Calculus III which will transfer into RPI as two calculus courses and meet their calculus requirement. **It is highly recommended that students complete their Calculus requirement at SUNY Adirondack rather than doing some of it here and the remainder at their transfer institution.**

- Many computer science programs at transfer schools require two semesters of physics. Students should check with their transfer schools. RPI transfers should take EGR 105 and EGR 106 to satisfy RPI's physics requirement.

- CIS 243 is the most rigorous course in the CMPS major. Since the assignments in that course require **LARGE** amounts of time, when registering for CIS 243, students should plan their schedules with that in mind.

- The prerequisite for CIS 244 is CIS 243 or permission of instructor. Since this course is a spring only course, some students may find themselves taking CIS 243 (the 3rd course in a sequence of 4) in the spring and then needing to wait until the following spring to take CIS 244 (the 4th course in the sequence). To take both courses in the same spring semester, students must get permission from the CIS 244 instructor, which is typically granted as long as the student has received at least a B in CIS 144. A student that falls into that category should also have taken CIS 150 before the semester that he/she is forced to take CIS 243 and CIS 244 together.

❖ **COURSE PREREQUISITES:**			
CIS 143	MAT 108 (or equivalent) or CIS 122	**CIS 243**	CIS 144 (with C or better) and MAT 129
CIS 144	CIS 140 with C or better or CIS 143 with C or better	**CIS 244**	CIS 243 (or CIS 144 and permission of instructor)
CIS 150	CIS 140 or CIS 143	**MAT 129**	MAT 108 with C or better
CIS 151	CIS 143 or CIS 122	**MAT 131**	MAT 121 and MAT 125 (with C or better)
CIS 222	CIS 144	**MAT 132**	MAT 131 with C or better
CIS 237	CIS 144	**MAT 220**	MAT 131 with C or better
		MAT 223	MAT 121 with C or better
		MAT 231	MAT 132 with C or better

❖ **RECOMMENDED SEQUENCE:**			
FIRST YEAR			
First Semester		**Second Semester**	
1-4	HRD 100, HRD 100A or HRD 110		
3	ENG 101 or ENG 100 A & B	3	ENG 102 – ENG 110
3	MAT 129	3	CIS 144
3	CIS 143	3	CIS 150
3	SUNY GEN ED Social Science	3	HIS 100, HIS 101 or HIS 102
3	Liberal Arts and Sciences (See Note 1)	3	Liberal Arts and Sciences (See Note 1)
1	Health and Wellness	1	Health and Wellness
SECOND YEAR			
Third Semester		**Fourth Semester**	
4	CIS 243	3	CIS 244
4	MAT 131	3	Computer Science or Mathematics Elective
3-4	SUNY GEN ED Natural Science lab science (EGR 105 or PHY 111 recommended)	3	SUNY GEN ED Mathematics or SUNY GEN ED Natural Science
3	SUNY GEN ED The Arts, SUNY GEN ED Foreign Language or SUNY GEN ED Humanities	5	Electives
3	HIS 103 or HIS 104		
NOTES:			
1. A minimum of 2 credits of Liberal Arts and Sciences must be from SUNY GEN ED Knowledge Areas.			

❖ **DEFINITION OF COURSE REQUIREMENTS:** See http://catalog.sunyacc.edu/academics/degreerequirements

❖ **FINANCIAL AID RECIPIENTS:** A student **must** choose courses that are within their degree program. Students are encouraged to visit the Center for Student Success in Warren Hall for any questions about course selection and degree program requirements. Please visit the Office of Financial Aid for any aid-related questions.

❖ **SUNY GEN ED KNOWLEDGE AREAS:** See http://catalog.sunyacc.edu/academics/generaleducation

- ❖ Mathematics (GEMA)
- ❖ Natural Sciences (GENS)
- ❖ Social Sciences (GESS)
- ❖ American History (GEAH)
- ❖ Western Civilization (GEWC)
- ❖ Other World Civilization (GEOC)
- ❖ Humanities (GEHU)
- ❖ The Arts (GETA)
- ❖ Foreign Languages (GEFL)
- ❖ Basic Communication (GEBC)