

## Computer Science AS (CMPS)

Catalog: 2023-2024		Effective Date: 9/01/2023	
CR	COURSE	COURSE TITLE	SUNY GEN ED
1-2	HRD 100, HRD 100A or HRD 110	FRESHMAN EXPERIENCE	
3	ENG 101	<i>Introduction to College Writing</i>	GSWO
3	ENG 102, ENG 103, ENG 104, ENG 105, ENG 106, ENG 107, ENG 108, ENG 109 or ENG 110	<i>Writing II</i>	GSWO
4	MAT 131	<i>Calculus I</i>	GMAT
3-4	SUNY GEN ED Natural Sciences (and Scientific Reasoning) lab science	EGR 105 <i>Engineering Physics I</i> or PHY 111 <i>General Physics I</i> recommended	GNSC
3	SUNY GEN ED Mathematics (and Quantitative Reasoning) or SUNY GEN ED Natural Sciences (and Scientific Reasoning)	MAT 132 <i>Calculus II</i> recommended	GMAT GNSC
6	Choose 2 GEN ED categories from: SUNY GEN ED World History and Global Awareness SUNY GEN ED US History and Civic Engagement SUNY GEN ED Social Sciences		GGLB GUSC GSSC
3	SUNY GEN ED The Arts, SUNY GEN ED World Languages or SUNY GEN ED Humanities		GART GWRL GHUM
3	SUNY GEN ED Diversity: Equity, Inclusion and Social Justice		GDVR
3	CIS 143 (Prereq Required)	<i>Introduction to Programming</i>	
3	CIS 144 (Prereq Required.)	<i>Intermediate Programming in a Windows Environment</i>	
3	CIS 150 (Prereq Required)	<i>Topics in Computing</i>	
4	CIS 243 (Spring Only - Prereq Required)	<i>Data Structures and Objects in C++</i>	
3	CIS 244 (Spring only - Prereq Required)	<i>Computer Systems and Programming</i>	
3	MAT 129	<i>Discrete Mathematics</i>	GMAT
3-4	Choose 1 (Prereq Required) from: EGR 183 (Spring only – even years), CIS 151, CIS 237 (Spring only), MAT 132 or MAT 231 (Fall only)	COMPUTER SCIENCE or MATHEMATICS ELECTIVE	
3	Choose 1 from: CIS 120, CIS 131, CIS 178, CIS 211(Spring only) or EGR 120	TECS ELECTIVE	
6	Liberal Arts and Sciences		
4	Electives		
<b>64</b>	<b>Minimum credits required for graduation</b>		

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

## Notes on Computer Science AS (CMPS)

<b>❖ COURSE PREREQUISITES:</b>			
<b>CIS 143</b>	MAT 108 (or equivalent) or CIS 122	<b>CIS 244</b>	CIS 243 (or CIS 144 and permission of instructor)
<b>CIS 144</b>	CIS 140 with C or better <u>or</u> CIS 143 with C or better	<b>EGR 183</b>	MAT 108 with C or better
<b>CIS 150</b>	CIS 140 or CIS 143	<b>MAT 129</b>	MAT 108 with C or better within 4 years
<b>CIS 151</b>	CIS 122 or CIS 140 or CIS 143	<b>MAT 131</b>	MAT 121 with C or better within 4 years <u>and</u> MAT 125 with C or better within 4 years or equivalent
<b>CIS 178</b>	Should be taken in last semester of enrollment	<b>MAT 132</b>	MAT 131 with C or better within 4 years
<b>CIS 211</b>	Any CIS course and any credit bearing MAT course	<b>MAT 220</b>	MAT 131 with C or better within 4 years
<b>CIS 237</b>	CIS 144	<b>MAT 223</b>	MAT 121 with C or better within 4 years
<b>CIS 243</b>	CIS 144 (with C or better) <u>and</u> MAT 129	<b>MAT 231</b>	MAT 132 with C or better within 4 years

<b>❖ RECOMMENDED SEQUENCE:</b>			
<b>FIRST YEAR</b>			
<b>First Semester</b>		<b>Second Semester</b>	
1-2	HRD 100, HRD 100A or HRD 110		
3	ENG 101	3	ENG 102 – ENG 110
3	MAT 129	3	CIS 144
3	CIS 143	3	CIS 150
3	SUNY GEN ED Diversity: Equity, Inclusion and Social Justice	3	SUNY GEN ED US History and Civic Engagement, SUNY GEN ED World History and Global Awareness or SUNY GEN ED Social Sciences
3	Liberal Arts and Sciences	3	TECS Elective (See Note 1)
<b>SECOND YEAR</b>			
<b>Third Semester</b>		<b>Fourth Semester</b>	
3-4	Computer Science or Mathematics Elective (See Note 2)	3	CIS 243
4	MAT 131	3	CIS 244
3-4	SUNY GEN ED Natural Sciences (and Scientific Reasoning) lab science (EGR 105 or PHY 111 recommended)	3	SUNY GEN ED Mathematics (and Quantitative Reasoning) or SUNY GEN ED Natural Sciences (and Scientific Reasoning) – By advisement
3	SUNY GEN ED The Arts, SUNY GEN ED World Languages or SUNY GEN ED Humanities	3	Liberal Arts and Sciences
3	SUNY GEN ED US History and Civic Engagement, SUNY GEN ED World History and Global Awareness or SUNY GEN ED Social Sciences	4	Electives
<b>NOTES:</b>			
1. TECS Electives: CIS 120, CIS 131, CIS 178, CIS 211 (Spring only) or EGR 120			
2. Computer Science and Mathematics Electives: CIS 151, CIS 237, EGR 183 (Spring only – even years), MAT 132 or MAT 231 (Fall only)			

❖ **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 meet with their assigned academic advisor 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>

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>❖ Mathematics (and Quantitative Reasoning) (GMAT)</li> <li>❖ Natural Sciences (and Scientific Reasoning) (GNSC)</li> <li>❖ Social Sciences (GSSC)</li> <li>❖ US History and Civic Engagement (GUSC)</li> <li>❖ World History and Global Awareness (GGLB)</li> </ul> | <ul style="list-style-type: none"> <li>❖ Diversity: Equity, Inclusion and Social Justice (GDVR)</li> <li>❖ Humanities (GHUM)</li> <li>❖ The Arts (GART)</li> <li>❖ World Languages (GWRL)</li> <li>❖ Communication – Written and Oral (GCWO)</li> </ul> |
|--|---|

## 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: Cybersecurity 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 1<sup>st</sup> course in a four course (semester) sequence). These students should be encouraged to take CIS 140 (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.

**THIS PAGE IS LEFT INTENTIONALLY BLANK**