Computer Science

Program Information

Degree Type: AS
Program Code: CMPS
Degree Worksheet PDF: 2023_2024_cmps.pdf [1]
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CMPS
2023_2024_cmps.pdf [2]

Microcredential: http://www.sunyacc.edu/academics/microcredentials [3]

This AS degree program provides a solid foundation in algorithm development techniques and the implementation of algorithms and data structures in a modern high-level programming language. Hardware capabilities are examined in depth, with an emphasis on better understanding of program behavior. Computer architecture, theory of computation, concurrence, artificial intelligence, software engineering, and program complexity, correctness, and efficiency are introduced. This program is designed to provide the first two years of a rigorous program in Computer Science. *Recommended high school preparation: Three years of mathematics courses and high school electives in computer science.*

Cr.	Course Title	Course Code
1-2	FRESHMAN EXPERIENCE	HRD100 HRD100A or HRD110
3	Introduction to College Writing	ENG101
3	Writing II	ENG102, ENG103, ENG104, ENG105, ENG106, ENG107, ENG108, ENG109 or ENG110
4	Calculus I	MAT131
3-4	SUNY GEN ED Natural	EGR105 Engineering Physics I or

	Sciences (and Scientific Reasoning) lab science	PHY111 General Physics I recommended
3	SUNY GEN ED Mathematics (and Quantitative Reasoning) or SUNY GEN ED Natural Sciences (and Scientific Reasoning)	MAT132 Calculus II recommended
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 Science	
3	SUNY GEN ED The Arts, SUNY GEN ED World Languages, or SUNY GEN ED Humanities	
3	SUNY GEN ED Diversity: Equity, Inclusion and Social Justice	
3	Introduction to Programming	CIS143 (Prereq Required)
3	Intermediate Programming in a Windows Environment	CIS144 (Prereq Required)
3	Topics in Computing	CIS150 (Prereq Required)
4	Data Structures and Objects in C++	CIS243 (Prereq Required)
3	Computer Systems and Programming	CIS244 (Spring only-Prereq Required)
3	Discrete Mathematics	MAT129
3-4	COMPUTER SCIENCE or MATHEMATICS ELECTIVE	Choose 1 (Prereq Required) from: EGR183 (Spring only – even years), CIS151 , CIS237 (Spring only), MAT132 or MAT231 (Fall only)
3	TECS Elective	Choose 1 from:

		CIS120, CIS131, CIS178 or CIS211 (Spring only) or EGR120
6	Liberal Arts and Sciences [4]	
4	Electives	
64	**Minimum credits required for graduation**	

Recommended First Year		
First Semester		
1-2	HRD100, HRD100A or HRD110	
3	ENG101	
3	MAT129	
3	CIS143	
3	SUNY GEN ED Diversity: Equity, Inclusion and Social Justice	
3	Liberal Arts and Sciences	
Second Semester		
3	ENG102 - ENG110	
3	CIS144	
3	CIS150	
3	SUNY GEN ED US History and Civic Engagement, SUNY GEN ED World History and Global Awareness or SUNY GEN ED Social Sciences	
3	TECS Elective (See Note 1)	
Recommended Second Year		
Third Semester		
3-4	Computer Science or Mathematics Elective (See Note 2)	
4	MAT131	
3-4	SUNY GEN ED Natural Sciences (and Scientific Reasoning) lab science (EGR105 or PHY111 recommended)	
3	SUNY GEN ED The Arts, SUNY GEN ED World Languages or SUNY GEN ED Humanities	
3	SUNY GEN ED US History and Civic Engagement, SUNY GEN ED World History and Global Awareness or SUNY GEN ED Social Sciences	
Fourth Semester		
3	CIS243	
3	CIS244	
3	SUNY GEN ED Mathematics (and Quantitative Reasoning) or SUNY GEN ED Natural Sciences (and Scientific Reasoning) – By advisement	
3	Liberal Arts and Sciences	
4	Electives	

NOTES

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)

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Links:

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cmps.pdf

[3] http://www.sunyacc.edu/academics/microcredentials

[4] http://catalog.sunyacc.edu/academics/degreerequirements