Computer Science with MS in Computer Science 4+1
Recommended Five-Year Plan (Fall 2023)

The recommended five-year plan is designed to provide a blueprint for students to complete their degrees within five years. These plans are the recommended sequences of courses. Students must meet with their Major Advisor to develop a more individualized plan to complete their degree. This plan assumes that no developmental courses are required. If developmental courses are needed, students may have additional requirements to fulfill which are not listed in the plan.

NOTE: This recommended Five-Year Plan is applicable to students admitted into the major during the 2023-2024 academic year. To enroll, visit https://www.ramapo.edu/dmc/4plus1/
Changes to the traditional four-year plan are noted in undergraduate courses taken in order to meet entry requirements, graduate courses taken as an undergraduate, and normal graduate courses

First Year					
Fall Semester	**HRS**	✓	**Spring Semester**	**HRS**	✓
CMPS 147-Computer Science I	4		CMPS 148-Computer Science II	4	
Gen Ed: MATH 110-Precalculus	4		MATH 121-Calculus I	4	
Gen Ed: INTD 101-First Year Seminar	4		CMPS 220-Assembly Language Programming	4	
Gen Ed: CRWT 102 - Critical Reading and Writing II	4		Gen Ed: AIID 201- Studies in the Arts & Humanities	4	
			Career Pathways: PATH TS1 – Career Pathways Module 1	Degree Rqmt.	
Total:	16		**Total:**	16	

Second Year					
Fall Semester	**HRS**	✓	**Spring Semester**	**HRS**	✓
CMPS 231-Data Structures	4		CMPS 311-Operating Systems **WI**	4	
MATH 237-Discrete Structures or MATH 205 Mathematical Structures **WI**	4		CMPS Elective	4	
Gen Ed: SOSC 110-Social Science Inquiry	4		Gen Ed: Global Awareness	4	
Gen Ed: Historical Perspectives	4		Gen Ed: Scientific Reasoning	4	
Career Pathways: PATH TS2 – Career Pathways Module 2	Degree Rqmt.		Career Pathways: PATH TS3 – Career Pathways Module 3	Degree Rqmt.	
Total:	16		**Total:**	16	

Third Year					
Fall Semester	**HRS**	✓	**Spring Semester**	**HRS**	✓
CMPS 361-Software Design	4		CMPS Elective	4	
CMPS Elective	4		CMPS Elective	4	
MATH Elective	4		MATH Elective	4	
Gen Ed: Culture & Creativity, Systems Sustainability & Society, or Values & Ethics	4		Gen Ed: Culture & Creativity, Systems Sustainability & Society, or Values & Ethics **(Must be outside of TAS)**	4	
Elective *	2		**Elective***	1	
Total:	18		**Total:**	17	

Fourth Year					
Fall Semester	**HRS**	**✓**	**Spring Semester**	**HRS**	**✓**
CMPS 366-Organization of Programming Languages	4		CMPS Elective	4	
CMPS Elective	4		CMPS 450: Senior Project **WI**	4	
CMPS Elective	4		CMPS 531 Data Structures and Algorithms	3	
CMPS 547 Foundations of Computer Science	3		MSCS Elective or DATA 620	3	
Total:	15		**Total:**	14	

Fifth Year - MSCS					
Fall Semester	**HRS**	**✓**	**Spring Semester**	**HRS**	**✓**
MSCS Elective	3		MSCS Elective or DATA 620	3	
MSCS Elective	3		MSCS Elective	3	
MSCS Elective	3		CMPS 750 - THESIS	3	
MSCS Elective	3				
Total:	12		**Total:**	9	

Total Credits Required for undergraduate degree: 128 credits**
GPA Required for BS in Computer Science: 2.0
GPA Required for 4+1 Pathway: 3.0
WI: Writing Intensive-3 required in the major

* Two additional electives are required in the 3rd year because graduate courses are only 3 credits, instead of the usual 4 for undergraduate courses. Thus, a student must take an additional 3 credits to meet the 128-credit graduation requirement.

Total Graduate Credits Required: 30 credits**
GPA Required for MSCS: 3.0

**The 9 credits of graduate coursework taken in the fourth-year will double count towards both the undergraduate degree requirement of 128 credits as well as the required 30 graduate credits.