

Curriculum Map – Computer Science Area - Bachelor of Science / Data Science Track

NOTE: This curriculum map assumes that students have not transferred in any previously completed college level courses.

All baccalaureate degree seeking students must complete a minimum of 33 hours of general education courses which includes:

- | | |
|--|--|
| FYS 101 – First Year Seminar | ENG 100 – Writing I |
| MATH 123, 131, 135, 152, 174 or 175* | ENG 200 – Writing II |
| COMS 108 – Fund. Of Speech Communication | Knowledge – Natural Science (NSC; select 2) |
| Knowledge – Arts & Humanities (HUM) | Global Cultures – Arts & Humanities (HUM) |
| Knowledge – Social & Behavioral Sciences (SBS) | Ethics & Civil Engagement – Social & Behavioral Sciences (SBS) |

The approved NSC, HUM, and SBS course list is located in the current MSU Undergraduate Catalog.

*If applicable, specific mathematics course required for degree shown below.

If an “f” or “s” is listed beside the course, this indicates the class is normally offered only in the fall semester (f) or spring semester (s).

FIRST YEAR COURSE SCHEDULE									
✓	Fall Semester	Code	Credits		✓	Spring Semester	Code	Credits	
	FYS 101 - First Year Seminar	G	3			COMS 108 - Fund. Of Speech Communication	G	3	
	ENG 100 - Writing I	G	3			ENG 200 - Writing II	G	3	
	General Education - HUM	G	3			General Education - HUM	G	3	
	MATH 175 - Calculus I	G R	4			MATH 275 - Calculus II	R	4	
	CS 170/170L - Introduction to Computer Science	R	4			CIS 205 - Introduction to Programming C++	R	3	
			Total Credit Hours					Total Credit Hours	16

SECOND YEAR COURSE SCHEDULE									
✓	Fall Semester	Code	Credits		✓	Spring Semester	Code	Credits	
	General Education - NSC	G	3			General Education - NSC	G	3	
	General Education - SBS	G	3			General Education - SBS	G	3	
	CS 303 (f) - Data Structures	RU	3			CS 285 - Programming in C#	R	3	
	MATH 353 or MATH 365 - Statistics or Intro to Math Statistics	RU	3			CS 310 (s) - Algorithms & Advanced Data Structures	RU	3	
	PHYS 201 or CHEM 111/111L - Elementary Physics I & Lab or Prin of Chem I/Lab	R	4			PHYS 202 or CHEM 112/112L or BIOL 171 - Elementary Physics II & Lab or Prin of Chem II/Lab or Principles of Biology	R	4	
			Total Credit Hours					Total Credit Hours	16

THIRD YEAR COURSE SCHEDULE									
✓	Fall Semester	Code	Credits		✓	Spring Semester	Code	Credits	
	CS 335 (f)- Theory of Programming Lang	RU	3			CS 340 - Computer Architecture & Org	RU	3	
	CS 372 - Math for Gam & Comp Sci App	RU	3			CS 360 (s) - Operating Systems	RU	3	
	CS 385 (f) - Adv Programming Methods	RU	3			CS 380 - Software Engineering	RU	3	
	MATH 308 (f) - Discrete Mathematics	RU	3			CS 420 - Data Mining Concepts	RU	3	
	Free Elective (any course where you meet the prerequisite/s)	E	3						
			Total Credit Hours					Total Credit Hours	12

FOURTH YEAR COURSE SCHEDULE									
✓	Fall Semester	Code	Credits		✓	Spring Semester	Code	Credits	
	CS 480 - Computer Security	RU	3			CS 440 - Parallel & Distributed Systems	RU	3	
	CS 499C - Capstone & Senior Thesis I	RU	2			CS 499D - Capstone & Senior Thesis II	RU	1	
	CS 430 - Machine Learning	RU	3			CS Elective (Refer to Program Evaluation)	EU	3	
	CS 470 - Artificial Intelligence	RU	3			CS Elective (Refer to Program Evaluation)	EU	3	
	CS Elective (Refer to Program Evaluation)	EU	3			Free Elective (any course where you meet the prerequisite/s)	E	3	
						Free Elective (any course where you meet the prerequisite/s)	E	1	
			Total Credit Hours					Total Credit Hours	14

- | | | |
|-------------------|------------------------------|--|
| (E) Elective, | (G) General Education Course | (S) Supplemental |
| (P) Pre-requisite | (R) Required Course | (U) Upper Division Course 300-400 level (you must have 42 hours) |