

# Minor in Computer Science



Updated: 6/4/2025

Catalog Year: 2025-2026

Total Credits Required: 17

\* Denotes prerequisite which can be taken at the same time as requirement

## Required Courses (11 credit hours)

Prerequisites			
CSE 1321 Programming & Problem Solving I	Lecture and lab must be taken together	3	
CSE 1321L Programming & Problem Solving I Lab	Lecture and lab must be taken together	1	
CSE 1322 Programming & Problem Solving II	'B' or better in CSE 1321/L & CSE 1322L* & MATH 1113/1190/2202*	3	
CSE 1322L Programming & Problem Solving II Lab	'B' or better in CSE 1321/L & CSE 1322* & MATH 1113/1190/2202*	1	
CS 3305 Data Structures	(MATH 2345 or CSE 2300) & 'B' or better in (CSE 1322/L or MTRE 2710 or CPE 3000)	3	

## Upper-Division Elective Courses (6 credit hours)

Please select two additional CS 3000-level and/or 4000-Level courses. CS 3503 Computer Organization & Architecture and CS 4306 Algorithm Analysis are recommended for students aiming for the Master of Science in Computer Science program at KSU.

Prerequisites			
CS 3410 Introduction to Database Systems	'B' or better in CSE 1322/L	3	
CS 3503 Computer Organization & Architecture	'B' or better in CSE 1322/L	3	
CS 3502 Operating Systems	CS 3305 & CS 3503	3	
CS 3622 Fundamentals of Data Communications	'B' or better in CSE 1322/L	3	
CS 4306 Algorithm Analysis	CS 3305	3	
CS 3626 Cryptography	(MATH 2345 or CSE 2300) & CS 3305*	3	
CS 3642 Artificial Intelligence	CS 3305	3	
CS 4265 Big Data Analytics	CS 3305 & (CS 3410 or CSE 3153)	3	
CS 4267 Machine Learning	CS 3642	3	
CS 4270 Intelligent Systems in Bioinformatics	CS 3305 & (CS 3410 or CSE 3153)	3	
CS 4277 Deep Learning	CS 3642 & CS 4267*	3	
CS 4308 Concepts of Programming Languages	CS 3305 & CS 3503	3	
CS 4322 Mobile Software Development	CS 3305 & (CS 3410 or CSE 3153) & SWE 3313	3	
CS 4412 Data Mining	CS 3305 & (CS 3410 or CSE 3153)	3	
CS 4422 Information Retrieval	CS 3305 & (CS 3410 or CSE 3153)	3	
CS 4504 Parallel & Distributed Computing	CS 3305 & CS 3503 & CS 3502*	3	
CS 4512 Systems Programming	CS 3305 & CS 3502	3	
CS 4514 Real-Time Systems	CS 3502	3	
CS 4522 HPC & Parallel Programming	CS 4504	3	
CS 4523 Programming Massively Parallel Processors	CS 3305 & CS 3502	3	
CS 4524 Cloud Computing	CS 4504	3	
CS 4612 Software Security	CS 3502 & CS 3626	3	
CS 4622 Computer Networks	CS 3503 & CS 3622	3	
CS 4626 Computer & Network Security	CS 3626 & CS 4622	3	
CS 4632 Modeling & Simulation	CS 3305	3	
CS 4712 User Interface Engineering	CSE 1322/L	3	
CS 4270 Internet Programming	CS 3305 & (CS 3410 or CSE 3153)	3	
CS 4722 Computer Graphics & Multimedia	CS 3305	3	
CS 4732 Machine Vision	CS 3642	3	
CS 4742 Natural Language Processing	CS 3642	3	
CS 4400 Directed Studies/CS 4491 Adv Topics/CS 4492 Undergrad Research/CS 4493 Research Seminar	Department Permission	1-3	