



KENNESAW STATE UNIVERSITY

Double Owl Pathway of Study

Undergraduate Program Name: BS in Computer Science

Graduate Program Name: MS in Computer Science

Pathway Description: Students in the BSCS program can follow this pathway to enroll in the MSCS program. Double Owl CS Scholars should pick three graduate courses based on their chosen concentration.

Course Pairs:

Double Owl CS Scholars will NOT take <u>three</u> of the following CS courses:	In their place, Double Owl CS Scholars will choose <u>three</u> of the following CS courses:
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Options for students in one of the concentrations

Artificial Intelligence (AI) – Pick three courses	
CS 3502	CS 6025
CS 4267	CS 7267
CS 4732	CS 7367
Concentration Elective	CS 6045
Data Science (DS) – Pick three courses	
CS 3502	CS 6025
CS 4412	CS 7050
CS 4265	CS 7265
Concentration Elective	CS 6045
Cyber and Network Security (CNS) – Pick three courses	
CS 3502	CS 6025
CS 4612	CS 7535
CS 4626	CS 7540
Concentration Elective	CS 6045

Possible Pathway of Study

Double counted courses are in RED

Year 1 - Fall (credits)	Credits	Year 1 - Spring (credits)	Credits
ENGL 1101: Composition I (A-1)	3	ENGL 1102: Composition II (A-1)	3
MATH 1113: Precalculus (A-2)	3	MATH 1190: Calculus I (D-1)	4
CSE 1321: Programming Problem Solving I	3	CSE 1322: Programming Problem Solving II	3
CSE 1321L: Programming Problem Solving I Lab	1	CSE 1322L: Programming Problem Solving II Lab	1
POLS 1101: American Government (E-1)	3	General Education Course (E-2)	3
ECON 1000: Contemporary Economic Issues (B-1)	2	MATH 2345: Discrete Mathematics	3
TOTAL SEMESTER CREDITS	15	TOTAL SEMESTER CREDITS	17
Year 2 - Fall (credits)	Credits	Year 2 - Spring (credits)	Credits
MATH 2202: Calculus II	4	CS 3622: Fundamentals of Data Comm	3
CS 3305: Data Structures	3	CS 3503: Computer Organization & Arch	3
Science course I (D-2)	3	CS 3410: Intro to Database Systems	3
Science course I Lab (D-2)	1	TCOM 2010: Technical Writing	3
General Education Course (E-3)	3	Science course II (D-2)	3
		Science course II Lab (D-2)	1

TOTAL SEMESTER CREDITS		14	TOTAL SEMESTER CREDITS		16
Apply to CS Graduate Program and Start Graduate Work					
Year 3 - Fall (credits)		Credits	Year 3 - Spring (credits)		Credits
SWE 3313: Intro to Software Engineering	3		CS 4308: Concepts of Programming Lang.	3	
CS 4306: Algorithm Analysis	3		CSE 3801: Professional Practices & Ethics	2	
MATH 2332: Probability & Data Analysis	3		MATH 3260: Linear Algebra I	3	
General Education Course (C-1)	3		General Education Course (E-4)	3	
Concentration Core I CS 3642: Artificial Intelligence (AI) CS 4265: Big Data Analytics (DS) CS 3626: Cryptography (CNS)	3		CS 3502 : Operating Systems replace with CS 6025: Operating Systems	3	
TOTAL SEMESTER CREDITS		15	TOTAL SEMESTER CREDITS		14
Year 4 - Fall (credits)		Credits	Year 4 - Spring (credits)		Credits
CS 6045:Advanced Algorithms	3		CS 4850: Capstone	3	
CS 4504: Distributed Computing	3		General Education Course (C-2)	3	
General Education Course (B-2)	3		Concentration Core III CS 4742: Natural Language Processing (AI) CS 4522: HPC & Parallel Programming (DS) CS 4626: Computer and Network Security (CNS)	3	
Concentration Core II CS 4732: Machine Vision (AI) CS 4422: Information Retrieval (DS) CS 4622: Computer Networks (CNS)	3		CS 7267 Machine Learning (AI) CS 7050 Data Warehousing and Mining (DS) CS 7535 Software and OS security (CNS)	3	
Free Elective	3		Free Elective	2	
TOTAL SEMESTER CREDITS		15	TOTAL SEMESTER CREDITS		14
Year 5 - Fall (credits)		Credits	Year 5 - Spring (credits)		Credits
CS 6041 Theory of Computation	3		CS 7367 Machine Vision (AI) CS 7172 Parallel and Distributed Computing (DS) CS 7540 Network Security	3	
CS 7375 Artificial Intelligence (AI) CS 7265 Big Data Analytics (DS) CS 7530 Advanced Cryptography (CNS)	3		CS 7347 Natural Language Processing (AI) CS 7253 Graph Algorithms (DS) CS 7545 AI for Security and Privacy (CNS)	3	
CS 7998:Research in Computer Science	3		CS 7999:Thesis	3	
CS 7999:Thesis	3				
TOTAL SEMESTER CREDITS	12		TOTAL SEMESTER CREDITS	9	