Bachelor of Science in Applied Computer Science
Data Science concentration

MATHEMATICAL SCIENCES and Engineering
University of South Carolina Aiken

First Year

Course	Title	hrs	Course	Title	hrs
1st Semester (16 hrs)			**2nd Semester (17 hrs)**		
MATH A141	Calculus I	4	MATH A142	Calculus II	4
CSCI A125	Introduction to Computer Science	3	ENGL A102	Composition and Literature	3
ENGL A101	Composition	3	CSCI A145	Algorithmic Design I	4
GEN ED	HIST A101 or HIST A102	3	STAT A509	Statistics	3
MATH A174	Discrete Math for Computer Sci.	3	GEN ED	Social and Behavioral Science	3

Second Year

Course	Title	hrs	Course	Title	hrs
1st Semester (14 hrs)			**2nd Semester (15 hrs)**		
CSCI A146	Algorithmic Design II	4	CSCI A220	Data Structures & Algorithms	3
MATH A344	Linear Algebra for CS and Eng.	3	CSCI A185	Computer Applications & Prog.	3
CSCI A165	Data Science with Python	4	CSCI A360	Software Engineering	3
College Req.	Elective	3	College Req.	Fine Arts Elective	3
			CSCI A345	Data Mining & Machine Learning	3

Third Year

Course	Title	hrs	Course	Title	hrs
1st Semester (15 hrs)			**2nd Semester (15 hrs)**		
CSCI A385	Advanced Machine Learning	3	CSCI A400	Special Topics in Data Science	3
GEN ED	COMM A201 or COMM A241	3	CSCI A320	Object-Oriented Programming	3
GEN ED	Humanities	3	CSCI A415	Computer Networks	3
CSCI A255	Introduction to Information Security	3	GEN ED	Humanities	3
College Req.	Elective	3	GEN ED	POLI A201, HIST A201, or HIST A202	3

Fourth Year

Course	Title	hrs	Course	Title	hrs
1st Semester (15 hrs)			**2nd Semester (13 hrs)**		
CSCI A520	Database System Design	3	CSCI A592	Capstone Seminar II	3
CSCI A591	Capstone Seminar I	3	ELECTIVE	CSCI Technical Elective	3
ELECTIVE	CSCI Technical Elective	3	College Req.	Natural Science with Lab	4
GEN ED	Natural Science with Lab	4	ELECTIVE	Free Elective	3
ELECTIVE	Free Elective	2			