Bachelor of Science in Applied Computer Science Data Science Concentration

Computer Science, Engineering and Mathematics
University of South Carolina Aiken

First Year

1st Semester (16 hrs)

Course	Title	hrs
MATH A141	Calculus I	4
CSCI A125	Introduction to Computer Science	3
ENGL A101	Composition	3
GEN ED	HIST A101 or HIST A102	3
MATH A174	Discrete Math for Computer Sci.	3

2nd Semester (17 hrs)

Course	Title	hrs
MATH A142	Calculus II	4
ENGL A102	Composition and Literature	3
CSCI A145	Algorithmic Design I	4
STAT A509*	Statistics	3
GEN ED	Social and Behavioral Science	3

Second Year

1st Semester (14 hrs)

Course	Title	hrs
CSCI A146	Algorithmic Design II	4
MATH A344	Linear Algebra for CS and Eng.	3
CSCI A165+	Data Science with Python	4
College Req.	Elective	3

2nd Semester (15 hrs)

Course	Title	hrs
CSCI A220	Data Structures & Algorithms	3
CSCI A185*	Computer Applications & Prog.	3
CSCI A360*	Software Engineering	3
College Req.	Fine Arts Elective	3
CSCI A345+	Data Mining & Machine Learning	3

Third Year

1st Semester (15 hrs)

Course	Title	hrs
CSCI A385+	Advanced Machine Learning	3
GEN ED	COMM A201 or COMM A241	3
GEN ED	Humanities	3
CSCI A255	Introduction to Information Security	3
College Req.	Elective	3

2nd Semester (15 hrs)

Course	Title	hrs
CSCI A400+	Special Topics in Data Science	3
CSCI A320*	Object-Oriented Programming	3
CSCI A415*	Computer Networks	3
GEN ED	Humanities	3
GEN ED API	POLI A201, HIST A201/HIST A202	3

Fourth Year

1st Semester (15 hrs)

Course	Title	hrs
CSCI A520^	Database System Design	3
CSCI A591^	Capstone Seminar I	3
TECH ELEC	Technical Elective	3
GEN ED	Natural Science with Lab	4
ELEC	Free Elective	2

2nd Semester (13 hrs)

Course	Title	hrs
CSCI A592*	Capstone Seminar II	3
TECH ELEC	Technical Elective	3
College Req.	Natural Science with Lab	4
ELEC	Free Elective	3

^Fall only *Spring only +Varies   Course frequency notes are subject change and do not include courses managed by other departments