Bachelor of Science in Computer Science
Geospatial Data Analytics Concentration
Transfer Curriculum Planning Guide and Baccalaureate Degree Plan
Fayetteville State University
(2022-2023)

University College Core Curriculum (General Education - 39 Credits)	Course Number[1]	Cr.	FSU Equivalent
Transitional Studies – University Studies (2 Credits) *Select one option from (UNIV 101/102) or UNIV 110 or UNIV 111 or UNIV 112*	ACA 122 (1 cr.)	2	Waived with 30 credit hours[2]
Transitional Studies – Life Skills (2 Credits) *Select two credits from the following: ENTR 100 or FINC 100 or GEOG 110 or HEED 112 or HEED 113 or PEDU 101 or PEDU 107 or PEDU 112 or PEDU 120 or PEDU 122 or PEDU 130 or PEDU 132 or PEDU 140*	HEA 110 or any PED course	2	Waived with AA/AS, NOT with AAS/AGE[2,3]
Communication Skills – Written Communication (3 Credits) – *ENGL 110*	ENG 111	3	ENGL 110
Information Literacy (3 Credits) – *ENGL 120*	ENG 112	3	ENGL 120
Communication Skills – Oral Communication (3 Credits) *BADM 215 or SPEE 200*	BUS 260 or COM 231	3	BADM 215 or SPEE 200
Reasoning Skills – Critical Thinking (3 Credits) *Select one from the following: PHIL 110 or PHIL 220*	HUM 115	3	Waived with 60 credit hours[2]
Reasoning Skills – Quantitative Reasoning (3 Credits) *Select one from the following: MATH 129 and MATH 130 or MATH 131*	MAT 171 and MAT 172	3	MATH 131 (or MATH 129 and MATH 130
Scientific Literacy – Natural Sciences (8 Credits)[4] *Select from the following:* *(BIOL 150 and BIOL 150L and BIOL 160 and BIOL 160L) or (CHEM 141 and CHEM 141L and CHEM 161 and CHEM 161L) or (PHYS 125 and PHYS 125L and PHYS 126 and PHYS 126L)*	Science Course with Lab	4	
	Science Course with lab	4	Waived with AA/AS, NOT with AAS/AGE[2,3]
Scientific Literacy – Social Sciences (3 Credits) *CRJC 210 or ECON 211 or ECON 212 or ENEC 270 or GEOG 210 or HIST 212 or HIST 271 or POLI 200 or POLI 210 or POLI 220 or PSYC 210 or SOCI 210*	Social science elective	3	
Humanities and Creative Arts (3 Credits) *Select one from the following: ART 210 or COMM 220 or ENGL 220 or ENGL 223 or ENGL 240 or ENGL 250 or ENGL 253 or HIST 210 or HUMN 211 or HUMN 212 or HUMN 213 or HUMN 215 or MUSI 210 or MUSI 225 or MUSI 260 or PHIL 210 or RELI 215 or THEA 203*	Hum/Fine Arts elective	3	
Global Literacy (3 Credits)[5] *Select one from the following: ANTH 210 or ART 150 or ART 215 or BADM 210 or CHIN 110 or CHIN 120 or ENGL 211 or ENGL 212 or FREN 110 or FREN 120 or GEOG 220 GLBL 200 or HIST 110 or HIST 120 or HIST 270 or PHIL 211 or POLI 230 or SOCI 150 or SPAN 110 or SPAN 112 or SPAN 120 or SPAN 122 or SPAN 211 or THEA 242 or YORU 110 or YORU 120*	Foreign language or Global literacy course	3	Waived with AA/AS, NOT with AAS/AGE[2]
Ethics and Civic Engagement (3 Credits) *Select three credits from the following: BADM 220 or CRJC 203 or EDUC 211 or ENEC 210 or ENGL 225 or ENGL 232 or ENGL 233 or ETCE 101 or ETCE 102 or ETCE 103 or ETCE 200 or GEOG 270 or HCM 200 or HIST 211 or PHIL 120 or PHIL 212 or PHIL 250 or PNUR 210 or POLI 150 or SPTM 210 or SWRK 220*		3	Waived with 60 credit hours[2]

Notes

1. Courses are for the North Carolina Community College (NCCC) system. Other courses may satisfy requirement.

2. Students do not earn credit if any requirement is waived. All students must earn at least 120 credits to graduate.

3. NCCC Associate in Arts (AA), Associate in Science (AS), Associate in Applied Science (AAS), Associate in General Education (AGE). Per NC Comprehensive Articulation Agreement, NCCC graduates with AA or AS have completed FSU general education requirements. NCCC general education courses not used for core may be applied to free electives or used to reach 120 credits. AAS, AFA, and other specific degrees may be governed by articulation agreements.

4. At least one Natural Science class must include a lab.

5. Not required for students with 30 or more transfer credits from a foreign institution. Students do not earn credit if requirement is waived.

Computer Science Program Requirements (81 Credits)	Course Number	Cr.	FSU Equivalent
Computer Science Courses (47 Credits): *CSC 120 and CSC 130 and CSC 201 and CSC 205 and CSC 207 and CSC 220 and CSC 303 and CSC 305 and CSC 320 and CSC 322 and CSC 351 and CSC 405 and CSC 431 and CSC 470 and CSC 490*	CSC 120, 121, 133, 134, 141, 143, or 145	4	CSC 120
	CSC 130 or 221	4	CSC 130
		3	CSC 201
		3	CSC 205
		3	CSC 207
	CSC 249	3	CSC 220
		3	CSC 303
		3	CSC 305
		3	CSC 320
		3	CSC 322
		3	CSC 351
		3	CSC 405
		3	CSC 431
		3	CSC 470
		3	CSC 490
Computer Science Requirement (3 Credits) *CSC 202 or CSC 204*	CSC 241, 245 or 253	3	CSC 202 or CSC 204
Geospatial Science Courses (3 credits) *GEOG 320*		3	GEOG 320
Math and Statistics Requirement (17 credits) *MATH 142 and MATH 150 and MATH 241 and MATH 251 and STAT 270*	MAT 271	4	MATH 142
	MAT 167	3	MATH 150
	MAT 272	4	MATH 241
	MAT 280	3	MATH 251
		3	STAT 270
Computer Science Elective Courses (3 Credits) *Select 3 credits from GEOG 325 or MATH 242 or MATH 260 or CSC 300 or higher or MATH 300 or higher or PHYS 200 or higher, or STAT 300 or higher* *Students must enroll in the GEOINT certificate program and complete the program to be eligible to have GEOG 325 counted towards computer science major requirements*	MAT 273	3	MATH 242
Science Elective (4 Credits) *Select at least four credits in addition to core requirements from the following:* *(BIOL 150 **AND** BIOL 150L) or (BIOL 160 **AND** BIOL 160L) or BIOL 200 or (CHEM 141 **AND** CHEM 141L) or (CHEM 161 AND CHEM 161L) or CHEM 220 or (PHYS 125 **AND** PHYS 125L) or (PHYS 126 AND PHYS 126L) or PHYS 211 or PHYS 212 or (BIOL 220 and BIOL 220L)*		4	
Free Electives: (4 Credits) *Any 100 or 200 level AA or AAS course, C or higher*		4	
Waived Core Requirements *The credits in this area increase as requirements are waived without credit in the university core – typically 7 credits to equal 120 credits overall; add extra lines as needed.*			
Total Credits		120	
Transfer Credits			

Baccalaureate Degree Plan (A.A.)

This Plan illustrates how students from North Carolina community colleges can meet degree course requirements in four years. Courses and requirements in Year 1 and Year 2 are from the NC community college catalog. Courses and requirements in Year 3 and Year 4 are from the FSU catalog. Some courses listed below may be taken in an alternate order. Courses fulfilling requirements are listed on the previous pages. For information about prerequisites and other program requirements, consult the appropriate Catalog Program of Study and an advisor. Students should work with advisor to create and update an individual plan.

Year 1 Fall		
Requirement	**Course**	**Cr**
Academic Transition	ACA 122	1
English Composition	ENG 111	3
Humanities/Fine Arts		3
Social/Behavioral Sciences		3
Math	MAT 171	4
Additional General Education		3
Total:		17

Year 1 Spring		
Requirement	**Course**	**Cr**
Communications	COM 120 or COM 231	3
English Composition	ENGL 112	3
Natural Sciences		4
Additional General Education	MAT 172	4
Social/Behavioral Sciences		3
Total:		17

Year 2 Fall		
Requirement	**Course**	**Cr**
Humanities/Fine Arts		3
Pre-Major/Elective	MAT 271	4
Pre-Major/Elective	CSC 120*	4
Additional General Education		3
Total:		14

Year 2 Spring		
Requirement	**Course**	**Cr**
Social/Behavioral Sciences		3
Pre-Major/Elective	CSC 130	4
Pre-Major/Elective	MAT 272	3
Additional General Education	MAT 167	3
Total:		13

Year 3 Fall		
Requirement	**Course**	**Cr**
Programming for GIS	CSC 205	3
Probability and Statistics in Computer Science	STAT 270	3
Basic Computer Org & Assembly Lan	CSC 201	3
Logic Programming	CSC 207	3
Data Structure / Algorithms	CSC 220	3
Total:		15

Year 3 Spring		
Requirement	**Course**	**Cr**
Geospatial Databases	CSC 305	3
Computer Org & Architecture	CSC 303	3
Design and Analysis of Algorithms	CSC 320	3
Programming Languages	CSC 322	3
Linear Algebra	MATH 251	3
Total:		15

Year 4 Fall		
Requirement	**Course**	**Cr**
Computer Ethics and Service Learning	CSC 351	3
Principles of Operating Systems	CSC 431	3
Software Engineering	CSC 470	3
Programming in C	CSC 202	3
Introduction to GIS	GEOG 320	3
Total:		15

Year 4 Spring		
Requirement	**Course**	**Cr**
Geospatial Applications of Data Analytics	CSC 405	3
Senior Project	CSC 490	3
Major elective		3
Free elective		4
Science elective		4
Total:		17

Notes
* Indicates a course recommended by the program. Other courses listed under the requirement may be used.

Baccalaureate Degree Plan (A.S.)

This Plan illustrates how students from North Carolina community colleges can meet degree course requirements in four years. Courses and requirements in Year 1 and Year 2 are from the NC community college catalog. Courses and requirements in Year 3 and Year 4 are from the FSU catalog. Some courses listed below may be taken in an alternate order. Courses fulfilling requirements are listed on the previous pages. For information about prerequisites and other program requirements, consult the appropriate Catalog Program of Study and an advisor. Students should work with advisor to create and update an individual plan.

Year 1 Fall		
Requirement	**Course**	**Cr**
Academic Transition	ACA 122	1
English Composition	ENG 111	3
Natural Sciences		4
Social/Behavioral Sciences		3
Math	MAT 171	4
		15

Year 1 Spring		
Requirement	**Course**	**Cr**
Communications	COM 120 or COM 231	3
English Composition	ENG 112	3
Natural Sciences		4
Humanities/Fine Arts		3
Math	MAT 172	4
	Total:	17

Year 2 Fall		
Requirement	**Course**	**Cr**
Social/Behavioral Sciences		3
Additional General Education	MAT 271	4
Pre-Major/Elective	MAT 167	3
Pre-Major/Elective	CSC 120*	4
	Total:	14

Year 2 Spring		
Requirement	**Course**	**Cr**
Pre-Major/Elective	CSC 130	4
Pre-Major/Elective	MAT 280	3
Additional General Education	MAT 272	4
Additional General Education		4
	Total:	15

Year 3 Fall		
Requirement	**Course**	**Cr**
Programming for GIS	CSC 205	3
Programming in C	CSC 202	3
Basic Computer Org & Assembly Lan	CSC 201	3
Logic Programming	CSC 207	3
Data Structure / Algorithms	CSC 220	3
	Total:	15

Year 3 Spring		
Requirement	**Course**	**Cr**
Geospatial Databases	CSC 305	3
Computer Org & Architecture	CSC 303	3
Design and Analysis of Algorithms	CSC 320	3
Programming Languages	CSC 322	3
Probability and Statistics in Computer Science	STAT 270	3
	Total:	15

Year 4 Fall		
Requirement	**Course**	**Cr**
Computer Ethics and Service Learning	CSC 351	3
Principles of Operating Systems	CSC 431	3
Software Engineering	CSC 470	3
Introduction to GIS	GEOG 320	3
Free elective		4
	Total:	16

Year 4 Spring		
Requirement	**Course**	**Cr**
Geospatial Application of Data Analytics	CSC 405	3
Senior Project	CSC 390	3
Major elective		3
Science elective		4
	Total:	13

Notes

* Indicates a course recommended by the program. Other courses listed under the requirement may be used.