Grambling State University Computer Science Curriculum Plan

Semester	Grade	Substitution	Course Number	Course Name	Hrs.	Prerequisites
FRESHMAN						
			BIOL 113	Principles of Biology -I	3	
			BIOL 115	Principles of Biology – I Lab	1	
			FYE 101	First Year Experience I	1	
			FYE 102	First Year Experience II	1	
			ENG 101	Freshman Composition	3	
			ENG 102	Freshman Composition	3	
			HIST 101	History of Western Civilization I	3	
			HIST 104	Modern World History	3	
			MATH 153[1]	Calculus I	3	MATH148 or ACT (Math) 22 or above
			MATH 154	Calculus II	3	MATH 153
			CS 110	Computer Science I	3	
			CS 120	Computer Science II	3	CS 110
				TOTAL	**30**	
SOPHOMORE						
			GET 300	Rising Junior Exam	0	
			ENG 200	World Literature I	3	
			ENG 207	Intro. to Technical Writing	3	
			THEA 212	Fund. of Public Speaking	3	
			MATH 201	Calculus III	3	MATH 154
			MATH 273	Probability and Statistics I	3	
			PHYS 153	General Physics I	3	
			PHYS 153L	General Physics Laboratory	1	
			CS 201	Social, legal, and Ethical issues in Information Age.	3	CS 120 or with the permission of
			CS 210	Discrete Structures	3	CS 110
			CS 236	Data Structures and Algorithm Analysis	3	CS 120, CS 210
			CS 325	Comp. Org. & Architecture	3	CS 236
				TOTAL	**31**	
JUNIOR						
			SOC 101	Introduction to Social Science	3	
			PHYS 154	General Physics II	3	
			PHYS 154L	General Physics Laboratory	1	
			MATH 274	Probability and Statistics II	3	MATH 273
			MATH 309	Intro. to Linear Algebra	3	MATH 154
			MATH 421	Numerical Methods I	3	MATH 201
			CS 310	Software Engineering	3	CS 236
			CS 311	Information Assurance and Security	3	CS 236
			CS 320	Database Management Systems	3	CS 236
			CS 336	Programming Language Concepts	3	CS 236
			CS 345	Operating Systems	3	CS 236
				TOTAL	**31**	
Semester	Grade	Substitution	Course Number	Course Name	Hrs.	Prerequisites
SENIOR						
			ART 105	Intro. To Fine & Performing Arts	3	

						Hrs.	
				ECON 201	Principles of Economics	3	
				CS 400	Computer Science Seminar	1	CS 236
				CS 406	Capstone Project	3	CS 310
				CS 419	Computer Networks	3	CS 236
				CS 450	Parallel processing	3	CS 325
				CS 4xx	Major Elective	3	See list
				CS 4xx	Major Elective	3	See list
			FR 101	SPAN 101	Foreign Language	3	
			FR 102	SPAN 102	Foreign Language	3	
					TOTAL	28	
					TOTAL	120	

1. Students deficient in Math are required to take MATH147/148 before taking MATH153.
2. Foreign Languages: Spanish 101 and Spanish 102 or French 101 or French 102 or German 101 and German 102

Selective General Education electives replaces Foreign Languages:

(ACCT 201 and ACCCT 202) or (GB 150 and GB202) or (MC 303 and MC 304) or (GB 150 and MAN 301)

Transfer Students

Student must have 30 transfer credit hours to exempt FYE 101 and FYE 102

(CHEM 111 and CEHM 113L) can be substituted for (BIOL 113 and BIOL 115L)

COMPUTER SCIENCE ELECTIVES

Course Number	Course Name	Hrs.	Prerequisites
CS 411	Applied Cryptography	3	CS 311
CS 415	Computer Games Programming	3	CS 236
CS 424	Advanced Programming Technique	3	CS 236
CS 426	Artificial Intelligence	3	CS 236
CS 428	Computer Graphics	3	CS 236
CS 435	Big Data and Cloud Security	3	CS 311
CS 451	Robotics	3	CS 236
CS 456	Special Topics in Computer science	3	CS 236
CS 462	Special Topics in Software Engineering	3	CS 310
CS 371	CO-OP-1	3	
CS 372	CO-OP-2	3	
CS 471	CO-OP-3	3	
CS 472	CO-OP-4	3	