GRAMBLING STATE UNIVERSITY

College of Arts and Sciences

Department of Mathematics and Computer Science

Computer Science Curriculum (Catalog: <u>Fall 2009</u> B. S. in Computer Science

Name:	SSN:	

Semester	Grade	Substitution	Course Number	Course Name		Prerequisites	Notes
FRESHMA	N	1	1				
			BIOL 113	Principles of Biology -I	3		
			BIOL 115	Principles of Biology – I Lab	1		
			FYE 001	First Year Experience I	1		
			FYE 002	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		
SOPHOM	ORE	1	1				
			GET 300	Rising Junior Exam	0		
			MATH 273	Probability and Statistics I	3	MATH 131/147	
			ENG 200	World Literature I	3		
			ENG 207	Intro. to Technical Writing	3		
			PHYS 153	General Physics I	3		
			PHYS 153L	General Physics Laboratory	1		
			ST 212	Fund. of Public Speaking	3		
			PA 201	Ethics for pub. Serv.	3		
			MATH 201	Calculus III	3	MATH 154	
			CS 210	Discrete Structures	3	CS 110	
			CS 225	Comp. Org. & Assembly Language	3	CS 120	
			CS 235	Data Structures	3	CS 120, CS 210	
				TOTAL	31		
UNIOR							
			PHYS 154	General Physics II	3		
			PHYS 154L	General Physics Laboratory	3		
			SOC 101	Introduction to Social Science			
			MATH 309	Intro. to Linear Algebra		MATH 154	
			MATH 421	Numerical Methods I		MATH 201	
			MATH 274	Probability and Statistics II		MATH 273	
			CS 310	Software Engineering		CS 235	
			CS 320	Database Management Systems		CS 235	
			CS 336	Programming Language Concepts		CS235	
			CS 345	Operating Systems	3	CS225 and CS235	
			CS 360	Design & Analysis of Algorithms	3	CS235	
				TOTAL	31		

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Semester	Grade	Substitution	Course Number	Course Name	Hrs.	Prerequisites	Notes
SENIOR						<u> </u>	
			ECON 201	Non-Major Elective	3		
			ART 210	Non-Major Elective	3		
			CHEM 101	Environmental Chemistry	3		
			CS 405	Software Development	3	CS310	
			CS 414	Computer Architecture	3	CS345	
			CS 419	Computer Networks	3	CS345	
			CS454	Theory of Computing	3	CS 336, CS 345	
			CS 4xx	Major Elective	3	See list	
			CS 4xx	Major Elective	3	See list	
				Foreign Language	3		
				Foreign Language	3		
				TOTAL	33		
				TOTAL	125		

^{1.} Students deficient in Math are required to take MATH147/148 before taking MATH153.

COMPUTER SCIENCE ELECTIVES

Course	Course Name	Hrs.	Prerequisites
Number			
CS426	Artificial Intelligence	3	CS 235
CS428	Computer Graphics	3	CS 235
CS440	Computer Performance Evaluation	3	CS345, MATH 274
CS445	Modeling and Simulation	3	CS 235, MATH 274
CS 424	Advanced Programming Techniques	3	CS 235
CS456	Special Topics in Computer Science	3	CS 235
CS459	Special Topics in Database Management Systems	3	CS320

This with the approval of the following Faculty members

- 1. Yenumula B Reddy, Ph. D., Computer Science
- 2. DJamal Bouchaffra, Ph. D., Computer Science
- 3. Brenda Miles, Ph. D., Computer Science
- 4. Nelly Delessy, Ph.D., Computer Science