COMPUTER SCIENCE (GENERAL CS CONCENTRATION), BACHELOR OF SCIENCE

Summary

Code	Title	Hours
Core Curriculum Requirements (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/)		**42**
Major Requirements (51 hours)		
CS 124	Fund Machine Computation	3
CS 120L	Intro to Comp & Problem Lab	1
CS 140	Computer Programming in Java	3
CS 140L	Computer Programming using Java Lab	1
CS 241	Advanced OOP Using C++	3
CS 243	Computer Organization	3
CS 246	Data & File Structures	3
CS 248	Theory of Computation	3
CS 250	Computer Networks Fundamentals	3
CS 342	Prog Lang & Design	3
CS 343	Assembly & Comp Archi	3
CS 346	Database Mgmt System	3
CS 415	Comp Ethics & Society	3
CS 444	Operating Systems	3
CS 456	Soft Eng	3
CS 499	Capstone Proj	3
CS 3XX or 4XX		3
CS 4XX or 5XX		3
CS 4XX or 5XX		3
Other Requirements (29 hours)		
MATH 2318	Linear Algebra	3
MATH 2413	Calculus & Analytic Geomtry I	4
MATH 2414	Calculus&Analytic Geometry II	4
MATH 473	Probability & Statistics I	3
or MATH 345	Applied Mathematics and Statistics for Scientists and Engineers	
PHYS 213	College Phys Lab I	1
PHYS 214	College Phys Lab II	1
PHYS 1302	College Physics II	3
FS 102	Freshman Seminar/ first Year Experience	1
Elective courses (9 hours)		**9**
Total Hours		**124**

Course	Title	Hours
First Year		
First Semester		
CS 120	Introduction to Programming Using C++	3
CS 120L	Intro to Comp & Problem Lab	1
MATH 2312	Precalculus Math	3
CHEM 1311	Chemistry I	3
ENGL 1301	Freshman English I	3
MUSI 1306	Music Appreciation	3
FS 102	Freshman Seminar/ first Year Experience	1
	Hours	17
Second Semester		
CS 124	Fund Machine Computation	3
CS 140	Computer Programming in Java	3
CS 140L	Computer Programming using Java Lab	1
MATH 2413	Calculus & Analytic Geomtry I	4
ENGL 1302	Freshman English II	3
COMM 1321 or COMM 1315	Business & Professional Comm or Public Address	3
	Hours	17
Second Year		
Third Semester		
CS 241	Advanced OOP Using C++	3
CS 243	Computer Organization	3
MATH 2414	Calculus&Analytic Geometry II	4
PHYS 213	College Phys Lab I	1
PHYS 1301	College Physics I	3
ENG 2XX	Any 200 Level ENG may be selected	3
	Hours	17
Fourth Semester		
CS 246	Data & File Structures	3
CS 248	Theory of Computation	3
CS 250	Computer Networks Fundamentals	3
MATH 2318	Linear Algebra	3
PHYS 214	College Phys Lab II	1
PHYS 1302	College Physics II	3
	Hours	16
Third Year		
Fifth Semester		
CS 342	Prog Lang & Design	3
CS 343	Assembly & Comp Archi	3
POLS 2305	American Government	3
HIST 1301	Soc & Pol Hist US to 1877	3
Elective Course		3
	Hours	15
Sixth Semester		
CS 346	Database Mgmt System	3
CS 300/400 CS Elective		3
POLS 2306	Texas Government	3
HIST 1302	Soc & Pol Hist US Since 1877	3
ECON 2301	Principles Of Economics I	3
	Hours	15
Fourth Year		
Seventh Semester		
CS 444	Operating Systems	3
CS 415	Comp Ethics & Society	3
CS 400/500 CS Elective		3

MATH 345 or MATH 473	Applied Mathematics and Statistics for Scientists and Engineers or Probability & Statistics I	3
Elective Course		3
	Hours	**15**
Eighth Semester		
CS 456	Soft Eng	3
CS 499	Capstone Proj	3
CS 400/500 CS Elective		3
Elective Course		3
	Hours	**12**
	Total Hours	**124**