BS COMPUTER SCIENCE-COMPUTER SCIENCE CONCENTRATION

Degree Requirements

Students should refer to their DegreeWorks degree audit in their Web for Students account for more information regarding their degree requirements.

Code	Title	Hours
Major Requirements		
General Education Requirements (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		42
Computer Science Core		
COSC 1315	Introduction to Computer Science	3
CS 355	Python Programming	3
CS 310	Analysis of Algorithms	3
EE 340	Computer Architecture	3
CS 361	Database Systems and Design	3
MATH 357	Probability and Statistics using R	3
CS 363	Data Mining Using AI & Machine Learning	3
CS 410	Operating Systems	3
Department Core		
CS 467	Image Processing and Computer Vision	3
MATH 2305	Discrete Mathematics	3
MATH 2413	Calculus I satisfies Core Curriculum	4
MATH 2414	Calculus II	4
MATH 372	Cryptology I	3
CS 305	Data Structures	3
CS 316	Web and UI Design	3
CS 352	Java Programming I	3
CS 353	Java Programming II	3
CS 360	Artificial Intelligence	3
CS 430	Mobile App Development	3
CS 465	Computer Security	3
CS 474	Computer Game Programming	3
CS 481	Software Project Management	3
Computer Science Concentration		
CS 367	Systems Design & Software Engineering	3
CS 484	DevOps and Software Testing	3
CS 495	Computer Science Capstone	3
CS 497	Special Topics	3
Electives as needed to meet minimum upper division and overall hours		
Total Hours required for the Degree		**120**

Note: A minimum of 54 upper division hours (300 and 400 level courses) are required for this degree. Resident credit totaling 25% of the hours is required for the degree. A minimum GPA of 2.0 is required in three areas for graduation: Overall GPA, Institutional GPA, and Major GPA.

Four Year Plan
First Year

Code	Title	Hours
Fall		**Semester Credit Hours**
ENGL 1301	Composition I requires minimum grade of 'C', Satisfies Core Curriculum	3

HIST 1301	United States History I [Satisfies Core Curriculum]	3
MATH 2413	Calculus I	4
Language, Philosophy and Culture Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3
UNIV 1100	University Foundations	1
Core Curriculum Component Area Option B Course [MATH 1314 will count as CAO if taken]		3
Fall Total Semester Credit Hours		**17**
Spring Semester		**Semester Credit Hours**
COSC 1315	Introduction to Computer Science	3
ENGL 1302	Composition II [Satisfies Core Curriculum]	3
or ENGL 2311	Technical Writing & Communication	
HIST 1302	United States History II [Satisfies Core Curriculum]	3
SPCH 1315	Public Speaking	3
or COMM 1307	Introduction to Mass Communication	
or COMM 1311	Introduction to Communication Studies	
MATH 1316	Plane Trigonometry [If needed to meet prerequisite for MATH 2413]	3-4
or MATH 2412	Pre-Calculus	
MATH 2414	Calculus II	4
Spring Total Semester Credit Hours		**16**
Total First Year Semester Credit Hours		**32-33**

Year 2

Code	**Title**	**Hours**
Fall		**Semester Credit Hours**
Life and Physical Sciences Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3-4
PSCI 2305	U.S. Government and Politics	3
Creative Arts Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3
CS 355	Python Programming	3
Elective - Upper Division as needed to meet upper division and overall requirement		
Fall Total Semester Credit Hours		**12-13**
Spring		**Semester Credit Hours**
PSCI 2306	State and Local Government	3
Life and Physical Sciences Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3-4
Social and Behavioral Science Core Curriculum Requirement (http://catalog.tamut.edu/academic-information/university-core-curriculum/)		3
MATH 357	Probability and Statistics using R	3
CS 361	Database Systems and Design	3
Spring Total Semester Credit Hours		**15-16**
Total Second Year Semester Credit Hours		**27-29**

Year 3

Code	**Title**	**Hours**
Fall		**Semester Credit Hours**
EE 340	Computer Architecture	3
CS 316	Web and UI Design	3
CS 352	Java Programming I	3

CS 367	Systems Design & Software Engineering	3
MATH 2305	Discrete Mathematics	3
Fall Total Semester Credit Hours		**15**
Spring		**Semester Credit Hours**
CS 353	Java Programming II	3
CS 360	Artificial Intelligence	3
CS 465	Computer Security	3
CS 410	Operating Systems	3
CS 363	Data Mining Using AI & Machine Learning	3
Spring Total Semester Credit Hours		**15**
Total Third Year Semester Credit Hours		**30**

Year 4

Code	Title	Hours
Fall		**Semester Credit Hours**
CS 484	DevOps and Software Testing	3
CS 430	Mobile App Development	3
CS 305	Data Structures	3
CS 310	Analysis of Algorithms	3
CS 497	Special Topics	3
Fall Total Semester Credit Hours		**15**
Spring		**Semester Credit Hours**
MATH 372	Cryptology I	3
CS 474	Computer Game Programming	3
CS 495	Computer Science Capstone	3
CS 481	Software Project Management	3
CS 467	Image Processing and Computer Vision	3
Spring Total Semester Credit Hours		**15**
Total Fourth Year Semester Credit Hours		**30**
Total Semester Credit Hours required for Degree		**120**

Note: A minimum of 54 upper division hours (300 and 400 level courses) are required for this degree. Resident credit totaling 25% of the hours is required for the degree. A minimum GPA of 2.0 is required in three areas for graduation: Overall GPA, Institutional GPA, and Major GPA.