

TEXAS A&M UNIVERSITY-CORPUS CHRISTI
 BACHELOR OF SCIENCE IN COMPUTER SCIENCE WITH A CONCENTRATION IN SYSTEMS PROGRAMMING CURRICULUM SHEET
 CATALOG 2020-2021

Name: _____
 ID#: _____

IMPORTANT NOTES:

- * Students are responsible for achieving a 2.25 GPA in their major courses to graduate as well as meeting all graduation minimums
- * Students are responsible for taking courses in the proper sequence to ensure orderly progression of work
- * See your Faculty Mentor every FALL. See your Academic Advisor as needed.
- * Prerequisites and semesters offered are subject to change with each catalog year
- * You must maintain a minimum GPA of 2.0 throughout your academic career to avoid Academic Probation or Suspension
- * You must earn 45 hours of upper division coursework and 36 of the hours must be earned at TAMUCC

I. UNIVERSITY CORE CURRICULUM

COMMUNICATIONS (6 Semester Hours):	SCH	PREREQUISITES	TERM
COMM 1311 FOUNDATION OF COMMUNICATION		N/A	ALL
ENGL 1301 COMPOSITION I	6	N/A	ALL
ENGL 1302 COMPOSITION II		ENGL 1301	ALL
+MATH 2413 CALCULUS I	4	Grade of C or better in MATH 1316 or MATH 2312, or placement into MATH 2413	ALL
+LIFE & PHYSICAL SCIENCE	4		ALL
+LIFE & PHYSICAL SCIENCE	4	8 HOUR SEQUENCE (Look below Science Sequence)	ALL
LANGUAGE, PHILOSOPHY & CULTURE	3	CHOOSE ONE: ENGL 2316, 2332, 2333, PHIL 1301, 2306, SPAN 3304, 3305, 3320 or 3325	ALL
CREATIVE ARTS	3	CHOOSE ONE: ARTS 1301 OR 1303 OR MEDA 1305 MUSI 1306 OR 1307 OR THEA 1310	ALL
American History (6 Semesters Hours):			
HIST 1301 US HISTORY TO 1865		N/A	ALL
HIST 1302 US HISTORY SINCE 1865	6	N/A	ALL
HIST 2301 TEXAS HISTORY		N/A	ALL
POLS 2305 US GOVT & POLITICS	3	N/A	ALL
POLS 2306 STATE & LOCAL GOVT	3	N/A	ALL
SOCIAL & BEHAVIORAL SCIENCES	3	ECON 1301 or ECON 2301 or ECON 2302 or PSYC 2301 or SOCI 1301	ALL
+COMPONENT AREA	4	(MATH 2414 CALCULUS II)	ALL

II. Major Curriculum for All Options

COSC 1100 Skills for Computing Professional I	1	Co-requisite w/ COSC 1435	Fall, Spring
COSC 1435 Intro Prob Solving I w/lab	4	MATH 1314 - College Algebra or placement beyond MATH 1314	ALL
COSC 1436 Intro Prob Solving II w/lab	4	COSC 1435	ALL
COSC 2334 Computer Architecture	3	COSC 1435 & MATH 2305	Fall, Spring
COSC 2437 Data Structures	4	COSC 1436 & Pre/Co-req MATH 2305	Fall, Spring
*COSC 3336 Intro to Database Systems	3	COSC 2437	Fall, Spring
*COSC 3346 Operating Systems	3	COSC 2437 & COSC 2334	Fall, Spring
*COSC 3370 Software Engineering	3	COSC 2437	Fall, Spring
*COSC 4100 Skills for Computing Professionals III	1	COSC 1100 and ENGL 3310, Senior Standing	Fall, Spring
*COSC 4354 Senior Capstone	3	COSC 3370, COSC 3336 & ENGL3310, taken during last semester	Fall, Spring
*ENGL 3310 Technical and Professional Writing for CS	3	N/A	Fall, Spring
MATH 2305 Discrete Mathematics I	3	MATH 1316, MATH 2312, or placement into MATH 2305	ALL
+MATH 2413 Calculus I w/lab	4	Grade of C or better in MATH 1316 or MATH 2312, or placement into MATH 2413	Fall, Spring
Choose one of:			
*MATH 3342 or MATH 3345	3	<u>Applied Probability & Statistics or Statistical Modeling and Data Analysis</u>	MATH 2413; MATH 2414 & COSC 1435 (or COSC 1330) Fall, Spring

II. Courses Specific to Concentration

COSC 2360 <u>Cyber Security</u>	3	COSC 1435	Fall, Spring
*COSC 3324 <u>Object-oriented Programming</u>	3	COSC 2437	Fall, Spring
*COSC 3353 <u>Survey of Programming Languages</u>	3	COSC 2437	Spring
*COSC 3373 <u>Software Project Management</u>	3	COSC 3370	Spring
*COSC 3385 <u>Numerical Methods</u>	3	MATH 2413, COSC 1435 (or 1330), & MATH 3311 Recommended.	MATH 2414 Fall
*COSC 4342 <u>Computer Networks</u>	3	COSC 3346 & MATH 2413	Fall, Spring
*COSC 4343 <u>Algorithms</u>	3	COSC 2437, MATH 2305, MATH 2413	Fall
*COSC 4348 <u>Systems Programming</u>	3	COSC 3346 & (COSC 3353 or COSC 3324)	Spring
Approved upper division Computer Science Electives (12 hrs):			
*COSC Upper Division Elective	3	See catalog for pre-requisites	Varies
*COSC Upper Division Elective	3	See catalog for pre-requisites	Varies
*COSC Upper Division Elective	3	See catalog for pre-requisites	Varies
*COSC Upper Division Elective	3	See catalog for pre-requisites	Varies
+MATH 2414 <u>Calculus II</u>	4	Grade of C or better in MATH 1316 or MATH 2312, or placement into MATH 2413	ALL
Choose one COSC course from below:			
COSC 4353 Compiler Construction		COSC 3353	Spring Even
COSC 4360 Theory of Programming Languages		COSC 2437	Fall Odd
COSC 4370 Models of Computation	3	MATH 2305	Spring Odd
Select a science sequence:			
CHEM 1411 & CHEM 1412			
PHYS 2425 & PHYS 2426			
BIOL 1406 & BIOL 1407	8	See catalog for pre-requisites	
GEOL 1403 & GEOL 1404			

Electives as needed to fulfill university minimum total hour requirements 0-1

UNIVERSITY REQUIREMENTS

FOREIGN LANGUAGE (2 SEMESTERS)		Met via HS Transcript or College-level course
UNIV 1101	FIRST-YEAR SEMINAR	1 N/A
UNIV 1102	FIRST-YEAR SEMINAR	1 N/A

TOTALS FOR DEGREE PLAN

TOTAL HOURS (MIN 125): 110 (121 WITH NO UCCP)

This curriculum expires in 6 years.

* Asterik Symbol = Upper division hours

+ Plus Symbol = Double counting core and major requirement