

TEXAS A&M UNIVERSITY-CORPUS CHRISTI
 BACHELOR OF SCIENCE IN COMPUTER SCIENCE WITH A CONCENTRATION IN GAME 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

	SCH	PREREQUISITES	TERM
Communications (6 Semester Hours):			
COMM 1311		FOUNDATION OF COMMUNICATION	N/A
ENGL 1301	6	COMPOSITION I	N/A
ENGL 1302		COMPOSITION II	ENGL 1301
+MATH 2413	4	CALCULUS I	Grade of C or better in MATH 1316 or MATH 2312, or placement into MATH 2413
+PHYS 2425	4	UNIVERSITY PHYSICS I	MATH 2413 or placement beyond MATH 2413
+PHYS 2426	4	UNIVERSITY PHYSICS II	PHYS 2425 and MATH 2414 (or placement beyond MATH 2414)
LANGUAGE, PHILOSOPHY & CULTURE	3	CHOOSE ONE: ENGL 2316, 2332, 2333, PHIL 1301, 2306, SPAN 3304, 3305, 3320 or 3325	Varies
CREATIVE ARTS	3	CHOOSE ONE: ARTS 1301 OR 1303 OR MEDA 1305 MUSI 1306 OR 1307 OR THEA 1310	N/A
American History (6 Semesters Hours):			
HIST 1301		US HISTORY TO 1865	N/A
HIST 1302	6	US HISTORY SINCE 1865	N/A
HIST 2301		TEXAS HISTORY	N/A
POLS 2305	3	US GOVT & POLITICS	N/A
POLS 2306	3	STATE & LOCAL GOVT	N/A
SOCIAL & BEHAVIORAL SCIENCES	3	ECON 1301 or ECON 2301 or ECON 2302 or PSYC 2301 or SOCI 1301	N/A
+COMPONENT AREA	4	MATH 2414	Grade of C or better in MATH 2413

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		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	Applied Probability & Statistics or Statistical Modeling and Data Analysis	3	MATH 2413; MATH 2414 & COSC 1435 (or COSC 1330)	Fall, Spring

II. Courses Specific to Concentration

COSC 2325	Game Design	3	None	Spring
COSC 2360	Cyber Security	3	COSC 1435	Fall, Spring
*COSC 3324	Object-Oriented Programming	3	COSC 2437	Fall, Spring
*COSC 3325	Game Programming	3	COSC 2437	Spring, Even Years
*COSC 3385	Numerical Methods	3	MATH 2413, COSC 1330 OR COSC 1435, and MATH 3311 Recommended.	MATH 2414 Fall
*COSC 4325	Advanced Game Programming	3	COSC 3325	Spring, Odd Years
*COSC 4328	Computer Graphics	3	COSC 2437 & MATH 2413	Fall, Odd Years
*COSC 4330	Intro to Artificial Intelligence	3	COSC 2437 & MATH 2305	Fall, Even Years
*COSC 4342	Computer Networks	3	COSC 3346 & MATH 2413	Fall, Spring
*COSC 4343	Algorithms	3	COSC 2437 & MATH 2305 & MATH 2413	Fall
MATH 2414	Calculus II	4	Grade of C or better in MATH 2413	ALL
*MATH 3311	Linear Algebra	3	Grade of C or better in MATH 2413	ALL
PHYS 2425	University Physics I		MATH 2413 or placement beyond MATH 241	ALL
PHYS 2426	University Physics II		PHYS 2425 and MATH 2414 (or placement beyond MATH 2414)	ALL
COSC Upper division elective (3000/4000 level)			See catalog	Varies

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

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): **123** (121 WITH NO UCCP)

This curriculum expires in 6 years.

* Asterik Symbol = Upper division hours

+ Plus Symbol = Double counting core and major requirement