



# UTRGV - COMPUTER SCIENCE (2020-2021) CHECKLIST

<b>MAJOR: COMPUTER SCIENCE CORE 32 hrs</b>			
Course		Hours	Check
CSCI1101	Intro to Computer Science	1	<input type="checkbox"/>
CSCI1370	Engr Computer Science I	3	<input type="checkbox"/>
CSCI1170	Engr Computer Science Lab	1	<input type="checkbox"/>
CSCI2333	Comp. Org. and Assembly Lang.	3	<input type="checkbox"/>
CSCI2344	Prog. In Unix/Linux Envir.	3	<input type="checkbox"/>
CSCI2380	Computer Science II	3	<input type="checkbox"/>
CSCI3310	Mathematical Found Of Comp Sci	3	<input type="checkbox"/>
CSCI3333	Algorithms & Data Structures	3	<input type="checkbox"/>
CSCI3336	Organization of Prog. Lang.	3	<input type="checkbox"/>
CSCI3340	Software Engineering I	3	<input type="checkbox"/>
CSCI4325	Automata, Formal Lang. & Comp.	3	<input type="checkbox"/>
CSCI4390	Senior Project	3	<input type="checkbox"/>

<b>PROGRAMMING LANG COURSES 3 hrs</b>			
Course		Hours	Check
CSCI3326	or OOP Java		
CSCI3327	or OOP	3	<input type="checkbox"/>
CSCI3328	or OOP C#		
CSCI3329	OOP Python		

<b>DATABASES, NETWORKING, OS 6 hrs</b>			
Course		Hours	Check
CSCI4333	Database Design and Impl	3	<input type="checkbox"/>
CSCI4334	Operating Systems	3	<input type="checkbox"/>
CSCI4335	Computer Architecture	3	<input type="checkbox"/>
CSCI4345	Computer Networks	3	<input type="checkbox"/>

<b>SUPPORT COURSES 18 hrs</b>			
Course		Hours	Check
ENGL 3342	Technical Communication	3	<input type="checkbox"/>
ELEE 2130	Digital Systems Engineering I Lab	1	<input type="checkbox"/>
ELEE 2330	Digital Systems Engineering I	3	<input type="checkbox"/>
MATH 2318	Linear Algebra	3	<input type="checkbox"/>
MATH 2413	Calculus I (3 hrs. to Gen.Edu.Core)	4	<input type="checkbox"/>
MATH 2414	Calculus II	4	<input type="checkbox"/>
STAT 3337	or Probability and Statistics		
ELEE 3340	or Prob and Stat for Elect Engineers	3	<input type="checkbox"/>
STAT 3301	Applied Stat for Sci, Eng & Med Sc		

<b>FREE ELECTIVES 10 hrs</b>			
Course		Hours	Check
Non-Advaced	Any course	10	<input type="checkbox"/>

<b>NOT IN DEGREE PLAN – TAKE AS NECESSARY</b>			
Course		Hours	Check
UNIV 1301	Learning Framework (if required)	3	<input type="checkbox"/>
MATH 1314 or 1414	College Algebra	3 or 4	<input type="checkbox"/>
MATH 2412	Pre - Calculus	4	<input type="checkbox"/>

<b>TECHNICAL ELECTIVES 9 HRS</b>			
Course		Hours	Check
CSCI3300	Internship in Comp Science	3	<input type="checkbox"/>
CSCI3334	Systems Programming	3	<input type="checkbox"/>
CSCI3341	Software Engineering II	3	<input type="checkbox"/>
CSCI3342	Internet Programming	3	<input type="checkbox"/>
CSCI3350	Numerical Methods	3	<input type="checkbox"/>
CSCI3370	Int to Game Development	3	<input type="checkbox"/>
CSCI4185	Res Sem (can repeat up to 3 tim)	1	<input type="checkbox"/>
CSCI4301	Digital Image Processing	3	<input type="checkbox"/>
CSCI4303	Computer Vision	3	<input type="checkbox"/>
CSCI4310	Design and Analysis of Alg	3	<input type="checkbox"/>
CSCI4318	Cyber Security	3	<input type="checkbox"/>
CSCI4319	Digital Forensics	3	<input type="checkbox"/>
CSCI4327	Compiler Construction	3	<input type="checkbox"/>
CSCI4336	Parallel and Distr Computing	3	<input type="checkbox"/>
CSCI4341	Topics in Computer Science	3	<input type="checkbox"/>
CSCI4343	Data Mining	3	<input type="checkbox"/>
CSCI4344	Bioinformatics	3	<input type="checkbox"/>
CSCI4350	Artificial Intelligence	3	<input type="checkbox"/>
CSCI4352	Machine Learning	3	<input type="checkbox"/>
CSCI4360	Computer Graphics and Int Sys	3	<input type="checkbox"/>
CSCI4365	Computer and Network Security	3	<input type="checkbox"/>
CSCI4381	Interactive Sys & User Interface I	3	<input type="checkbox"/>
CSCI4382	Computer Visualization	3	<input type="checkbox"/>
CSCI4383	Bioinformatics Imaging	3	<input type="checkbox"/>

<b>GENERAL EDUCATION CORE 42 hrs</b>			
Courses		Hours	Check
ENGL 1301	Rhetoric & Composition I	3	<input type="checkbox"/>
ENGL 1302	Rhetoric & Composition II	3	<input type="checkbox"/>
HIST 1301	U.S. History I	3	<input type="checkbox"/>
HIST 1302	U.S. History II	3	<input type="checkbox"/>
POLS 2305	U.S. & Texas Government I	3	<input type="checkbox"/>
POLS 2306	U.S. & Texas Government II	3	<input type="checkbox"/>
PHIL 2326	Ethics, Technology and Society	3	<input type="checkbox"/>
COMM 1315	Public Speaking	3	<input type="checkbox"/>
ANY	*Creative Arts*	3	<input type="checkbox"/>
ANY	*Social & Behavioral Sciences*	3	<input type="checkbox"/>
ANY	*Integrative & Exper. Learning*	1	<input type="checkbox"/>
<b>CHOOSE TWO COURSES:</b>			
BIOL 1406	General Biology I	4	<input type="checkbox"/>
BIOL 1407	General Biology II	4	<input type="checkbox"/>
BIOL 2401	Anatomy and Physiology I	4	<input type="checkbox"/>
BIOL 2402	Anatomy and Physiology II	4	<input type="checkbox"/>
CHEM 1311(LEC) & CHEM 1111(LAB)	Gen Chem		
<b>OR</b>			
CHEM 1309(LEC) & CHEM 1109(LAB)	Chem Eng		
CHEM 1312(LEC) & CHEM 1112(LAB)	Gen Chem	4	<input type="checkbox"/>
PHYS 1401	General Physics I	4	<input type="checkbox"/>
<b>OR</b>			
PHYS 2425	Physics for Scientists and Eng I		
PHYS 1402	General Physics II	4	<input type="checkbox"/>
<b>OR</b>			
PHYS 2426	Physics for Scientists and Eng II		

<b>ADVISING NOTES</b>	
<b>Prerequisites</b>	Refer to BSCS pre-requisite flow chart
<b>Course Calendar</b>	Find out when specific courses are offered
<b>Total Hours</b>	You must have 120 hours total
<b>Advaced Hrs</b>	You must have 42 advanced hours