

Bachelor of Science in **COMPUTER SCIENCE**

with

Name: _____

- | | |
|---|---|
| <input type="checkbox"/> Electronic Control Systems | <input type="checkbox"/> Game Development |
| <input type="checkbox"/> Entrepreneurship | <input type="checkbox"/> Custom |
| <input type="checkbox"/> Data Science | <input type="checkbox"/> None |

Choose One Focus Area Sophomore Year

2021-2022

Fall Semester

Spring Semester

FRESHMAN YEAR

			Credits	Sem	Grade
CSCI	135	Fund. of Computer Science I	3	_____	_____
CSCI	194	Freshman Seminar	1	_____	_____
M	171	Calculus I	3	_____	_____
WRIT	121	Intro to Technical Writing**	3	_____	_____
--	--	<i>Humanities Elective</i>	--	--	--
			3	_____	_____
--	--	<i>Social Science Elective</i>	--	--	--
			3	_____	_____
Total Credits			16		

			Credits	Sem	Grade
CSCI	136	Fund. of Computer Science II	3	_____	_____
COMX	230	Presenting Technical Inf.**	3	_____	_____
M	172	Calculus II	3	_____	_____
CSCI	255	Intro. To Embedded Systems	3	_____	_____
--	--	<i>Science Elective*</i>	--	--	--
			4	_____	_____
Total Credits			16		

SOPHOMORE YEAR

CSCI	232	Data Struct & Algorithms	3	_____	_____
CSCI	246	Discrete Structures	3	_____	_____
M	273	Multivariable Calculus	4	_____	_____
--	--	<i>Science Elective*</i>	--	--	--
			4	_____	_____
Total Credits			14		

CSCI	332	Design and Analysis of Algor	3	_____	_____
M	274	Intro. to Differential Equations	3	_____	_____
M	333	Linear Alegbra	3	_____	_____
--	--	<i>Social Science Elective</i>	--	--	--
			3	_____	_____
CSCI	210	Web Programming	3	_____	_____
Total Credits			15		

JUNIOR YEAR

CSCI	305	Concepts of Prog. Languages	3	_____	_____
ESOF	322	Software Engineering	3	_____	_____
★STAT	332	Stats for Scientists & Engin	3	_____	_____
BMIS	375	Data Analytics	3	_____	_____
--	--	<i>Professional or Free Elective***</i>	--	--	--
			3	_____	_____
Total Credits			15		

CSCI	361	Computer Architecture	3	_____	_____
ESOF	376	Engr. Secure Software	3	_____	_____
M	410	Numerical Computing**	3	_____	_____
CSCI	440	Advanced Database	3	_____	_____
--	--	<i>Humanities Elective</i>	--	--	--
			3	_____	_____
Total Credits			15		

SENIOR YEAR

CSCI	446	Artificial Intelligence	3	_____	_____
CSCI	466	Networks	3	_____	_____
CSCI	498	Internship**	2	_____	_____
WRIT	321W	Advanced Technical Writing**	3	_____	_____
--	--	<i>Professional or Free Elective***</i>	--	--	--
			3	_____	_____
Total Credits			14		

CSCI	438	Theory of Computation	3	_____	_____
CSCI	460	Operating Systems	3	_____	_____
CSCI	470	Web Science	3	_____	_____
CSCI	494	Senior Seminar	1	_____	_____
CSCI	498	Internship **	2	_____	_____
--	--	<i>Professional or Free Elective**</i>	--	--	--
			3	_____	_____
Total Credits			15		

Minimum credits for B.S. degree in Computer Science = 120

Total Credits on Worksheet: 120

Credits Completed: 0

*Science electives must include a two semesters of laboratory science (min. of 6 credits total), unless taking the PHSX 234, 235/236 sequence

Free electives must be added so that the number of credits of science and free electives sum to 8.

**WRIT 101 College Writing I can replace WRIT 121 Intro to Technical Writing.

COMX 111 Intro. to Public Speaking can replace COMX 230.

CSCI 486 Senior Project can replace CSCI 498 internship

WRIT 325W Writing in the Sciences or WRIT 322W Advanced Business Writing can replace WRIT 321W

M 426 Mathematical Modeling can replace M 410 Numerical Computing

***Students may elect to pursue a 9-credit Computer Science degree focus area (reverse side) with free electives.

COMPUTER SCIENCE DEGREE FOCUS AREAS

Professional Electives --- Junior and Senior Years

9 Credits for Each Focus Area

Entrepreneurship					
	<i>Junior Year</i>		<u>Fall</u>	<u>Spring</u>	<u>Sem/Gr</u>
*	ACTG 201	Principles of Financial Accounting	3	3	_____
*	ACTG 202	Principles of Managerial Accounting	3	3	_____
<i>Senior Year</i>					
*	BGEN 235	Business Law	3		_____
*	BFIN 322	Business Finance	3		_____
*	BMKT 325W	Principles of Marketing	3	3	_____
*	BMGT 335W	Management and Organization	3	3	_____
*	BMKT 342	Marketing Research		3	_____
*	BMGT 448W	Entrepreneurship	3		_____
* Select 6 credits from listed courses					
Electronic Control Systems					
	<i>Junior Year</i>		<u>Fall</u>	<u>Spring</u>	<u>Sem/Gr</u>
	EELE 201	Circuits I for Engineering (coreq M 172)	3		_____
*	EELE 202	Circuits I for Engineering Lab (coreq EELE 201)	1		_____
*	EELE 261	Intro. To Logic Circuits (prereq EELE 201, 202)		3	_____
*	EELE 465	Microcontroller Applications (prereq CSCI 255) (even years only)		3	_____
<i>Senior Year</i>					
*	PHSX 322	Electronics for Scientists (prereq PHSX 237, 238)		3	_____
*	EELE 203	Circuits II for Engineering (prereq EELE 201, 202 & M 274)	4		_____
*	EELE 320	Process Instrumentation and Control (prereq EELE 201 & 202)	4		_____
*	EELE 317	Electronics (prereq EELE 203)		3	_____
*	GEOP 446	Applied Linear Systems (prereq M274)		3	_____
* select 2 or more courses to reach a minimum of 9 elective credits within the focus area					

Game Development					
	<i>Junior Year</i>		<u>Fall</u>	<u>Spring</u>	<u>Sem/Gr</u>
	CAPP 163	Introduction to Game Design	3		_____
	CSCI 441	Computer Graphics (prereq CSCI 332, M 333)		3	_____
	MART 460	Game Engines		3	_____
<i>Senior</i>					
	CSCI 443	User Interface Design (prereq CSCI 136)	3		_____

CSCI 447	Machine Learning (prereq CSCI 332)			3
CSCI 477	Computational Modeling and Simulation (prereq CSCI 135, M 273 and STAT 332)		3	
<i>Select 9 credits from listed courses</i>				
Data Science				
<i>Junior Year</i>			<u>Fall</u>	<u>Spring</u>
CSCI 347	Data Mining (prereq CSCI 135 and BMIS 375)		3	_____
CSCI 444	Data Visualization (prereq CSCI 135)			3
STAT 432	Regression and Model Building (prereq STAT 332)			3
<i>Senior</i>				
CSCI 447	Machine Learning (prereq CSCI 332)			3
STAT 435	Statistical Computing and EDA (prereq STAT 332)			3
STAT 453	Statistical Learning and Data Science I (prereq STAT 432)		3	
STAT 454	Statistical Learning and Data Science II (prereq STAT 453)			3
<i>Select 9 credits from listed courses</i>				
Custom				
<i>Junior Year</i>			<u>Fall</u>	<u>Spring</u>
PGM Number	Title		3	_____
<i>Senior</i>				
PGM Number	Title		3	
PGM Number	Title			3
<i>Work with your advisor to select 9 credits of courses</i>				