

# Computer Science (B.S.) – Data Analysis and Visualization – Study Abroad

2023-2024 Academic Catalog, Bachelor of Science – Computer Science, Data Analysis and Visualization Specialization, Global Emphasis: Study Abroad

<b>Academic Core for B.S.</b>		<b>48 Hours</b>	<b>Computer Science</b>		<b>48 Hours</b>
<b>CHRISTIAN STUDIES</b>		<b>6</b>	<b>B.S. COMPUTER SCIENCE MAJOR REQUIRED COURSES</b>		<b>27</b>
CSBS 1311	Engaging the Old Testament	3	CISC 2315	Discrete Structures of Computer & Eng. Sciences	3
CSBS 1312	Engaging the New Testament	3	CISC 2330	Introduction to Object-Oriented Programming	3
<b>ENGLISH</b>		<b>9</b>	CISC 3321	Object Oriented Development	3
ENGL 1321	Rhetoric & Composition I	3	CISC 3322	Web Development	3
ENGL 1322	Rhetoric & Composition II	3	CISC 3323	Algorithms & Data Structures	3
ENGL	Literature	3	CISC 3325	Telecommunications & Networks	3
<i>A grade of a "C" or higher is required in ENGL 1321 and ENGL 1322.</i>			CISC 3341	Operating Systems	3
<b>EXERCISE &amp; SPORT SCIENCE – SELECT TWO DIFFERENT COURSES</b>		<b>2</b>	CISC 3360	Computer Organization & Architecture	3
EXAC	Activity Course	1	CISC 4327	Database Theory and Application	3
EXAC	Activity Course	1	Practical Experience – 300 Hrs. of Practical Work		-
<b>FINE ARTS – SELECT ONE</b>		<b>3</b>	<b>REQUIRED SUPPORT COURSES</b>		<b>12</b>
ARTS 1350	Art Appreciation	3	CISC 1305	Introduction to Computing	3
COMM 2335	Film Appreciation	3	CISC 4370	Computer Science & Engineering Ethics Seminar	3
FINA 2330	Exploring the Fine Arts	3	MATH 2320	Linear Algebra	3
MUSI 1340	Music Appreciation	3	WRIT 3344	Scientific Writing	3
THEA 2350	Introduction to the Theatre	3	<b>DATA ANALYSIS AND VIS. SPECIALIZATION – SELECT THREE</b>		<b>9</b>
<b>WORLD CULTURES – SELECT ONE</b>		<b>3</b>	CISC 4324	Network Security	3
ARTS 2354	World Art	3	CISC 4325	Network Security II: Cryptography	3
EXSS 2353	Lifespan Nutrition	3	CISC 4328	Computer Security	3
GLBL 2310	Cultural Immersion	3	CISC 4310	Artificial Intelligence	3
HIST 1311	History of World Civilizations to 1500	3	CISC 4335	Big Data	3
HIST 1312	History of World Civilizations since 1500	3	CISC 4340	Data Analysis and Visualization	3
MUSI 2358	World Music	3	CISC 4347	Graphics Programming	3
PHIL 2315	Introduction to Philosophy	3	<b>Electives</b>		<b>24 Hours</b>
<b>LAB SCIENCE</b>		<b>8</b>	<b>ELECTIVES</b>		<b>24</b>
	Laboratory Science Courses	8	You need 24 additional hours to reach your minimum 120 required hrs.		
<b>PUBLIC SPEAKING</b>		<b>3</b>	<b>Total Hours</b>		
COMM 1320	Public Speaking	3	Academic Core for B.S.	45	
<b>MATHEMATICS</b>		<b>4</b>	Global Emphasis – Study Abroad	3	
MATH 1430	Calculus I	4	B.S. Computer Science Major Required Courses	27	
<b>SOCIAL SCIENCE – SELECT ONE</b>		<b>3</b>	Required Support Courses	12	
BECO 2310	Principles of Economics	3	Data Analysis and Visualization Specialization	9	
PSYC 1301	General Psychology	3	Electives	24	
PSYC 2399	Child and Adolescent Development	3	<b>Total hours required for graduation</b>	<b>120</b>	
SOCI 1311	Introduction to Sociology	3	<b>Additional Graduation Requirements</b>		
SOCW 2311	Introduction to Social Work	3	Minimum Upper Level hours	36	
<b>US HISTORY OR US GOVERNMENT – SELECT ONE</b>		<b>3</b>	Minimum hours taken at UMHB	30	
HIST 2311	American History to 1877	3	Minimum Upper Level hours taken at UMHB	24	
HIST 2312	American History since 1877	3	Minimum cumulative GPA	2.0	
POLS 2305	United States Government	3			
POLS 2306	Texas State and Local Government	3			
<b>RESEARCH METHODS OR INTERNSHIP</b>					
Practical Experience – 300 Hrs. of Practical Work		-			
<b>FRESHMAN SEMINAR</b>		<b>1</b>			
UMHB 1101	Freshman Seminar	1			
<b>GLOBAL EMPHASIS – STUDY ABROAD</b>		<b>3</b>			
	Study Abroad	3			
<b>CHAPEL – 1 to 4 credits</b>					
UMHB 1002	Chapel				
<b>Fine Arts Experience – 2 to 8 credits</b>					
UMHB 1005	Fine Arts Experience				