

San Francisco Bay University and Grossmont College Course Mapping
General Education Courses (BSCS& BSBA)

Category	SFBU Course	College Equivalent	CSU	C-ID #	BSCS Requirement	BSBA Requirement	Unit Requirements
English Language & Communications & Critical Thinking	ENGL101 EXPOSITORY WRITING	ENGL 120 COLLEGE COMPOSITION & READING	A2	ENGL 100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	12 semester credits in BSCS; 12 semester credits in BSBA
	ENGL115 PUBLIC SPEAKING	COMM 122 PUBLIC SPEAKING	A1	COMM 110	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	ENGL425 MODERN AMERICAN LITERATURE	ENGL 232 AMERICAN LITERATURE II	C2	ENGL 135	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Additional Elective for English	Any course with a CSU GE A1, A2 and/or A3 designator	A1/A2/A3	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Mathematics & Natural Sciences	MATH201 CALCULUS – I	MATH 180 ANALYTIC GEOMETRY & CALCULUS I	B4	MATH 210	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16 semester credits in BSCS; 9 semester credits in BSBA
	MATH 202 CALCULUS – II	MATH 280 ANALYTIC GEOMETRY & CALCULUS II	B4	MATH 220	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	MATH203 LINEAR ALGEBRA	MATH 284 LINEAR ALGEBRA	B4	MATH 250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	MATH203 PROBABILITY & STATISTICS	MATH 160 ELEMENTARY STATISTICS	B4	MATH 110	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	PHYS 101 INTRODUCTION TO PHYSICAL SCIENCES	PHYC 110 INTRODUCTORY PHYSICS	B1/B2	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		PHYC 130 FUNDAMENTALS OF PHYSICS			<input type="checkbox"/>	<input type="checkbox"/>	
	PHYS201 PHYSICS – I and PHYS201L PHYSICS LAB – I	PHYC 201 MECHANICS & WAVES	B1/B3	PHYS 205	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional Elective for Math/Natural Sciences	Any course with a CSU GE Breadth designator B1, B2, B3, and/or B4	B1/B2/B3/B4	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Arts & Humanities	Elective for Humanities	Any course with a CSU GE C1 and/or C2 designator	C1/C2	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	6 semester credits in BSCS; 6 semester credits in BSBA
	Elective for Humanities	Any course with a CSU GE C1 and/or C2 designator	C1/C2	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Social Sciences	Elective for Social Science	Any course with CSU GE Breadth Area D	D	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	6 semester credits in BSCS; 9 semester credits in BSBA
	Elective for Social Science	Any course with CSU GE Breadth Area D	D	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Elective for Social Science	Any course with CSU GE Breadth Area D	D	N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Note: Courses without a CSU GE Breadth Designator will be evaluated individually. Courses without a C-ID designator will be evaluated individually.

BSCS Major Courses			BSBA Major Courses			
Category	SFBU Course	College Equivalent	Category	SFBU Course	College Equivalent	
Core Courses (65 units BSCS)	BUS450 PROFESSIONAL & TECHNICAL WRITING	No Equivalent	Core Courses (60 units BSBA)	ACC 110 FINANCIAL ACCOUNTING	BUS 120 FINANCIAL ACCOUNTING	
	CE305 COMPUTER ORGANIZATION	CSIS 165 ASSEMBLY LANGUAGE & MACHINE ARCHITECTURE		BAN199 EXCEL FOR FINANCE, ACCOUNTING & ANALYTICS	BOT 123 COMPREHENSIVE EXCEL, LEVEL I and BOT 124 COMPREHENSIVE EXCEL, LEVEL II	
	CS200 DISCRETE LOGIC	CSIS 240 DISCRETE STRUCTURES		BLAW310 INTRODUCTION TO BUSINESS LAW	BUS 125 BUSINESS LAW: LEGAL ENVIRONMENT OF BUSINESS	
	CS230 LINUX & SHELL SCRIPTING and CS230L LINUX & SHELL SCRIPTING LAB	CSIS 113 INTRODUCTION TO LINUX (SFBU lecture course needed for unit difference)		BUS450 PROFESSIONAL & TECHNICAL WRITING	No Equivalent	
	CS250 INTRODUCTION TO PROGRAMMING and CS250L INTRODUCTION TO PROGRAMMING LAB	CSIS 250 INTRODUCTION TO PYTHON PROGRAMMING		ECON 201 PRINCIPLES OF MACROECONOMICS	ECON 120 PRINCIPLES OF MACROECONOMICS	
	CS350 DATA STRUCTURES and CS350L DATA STRUCTURES LAB	CSIS 251 INTERMEDIATE PYTHON PROGRAMMING & FUNDAMENTAL DATA STRUCTURES or CSIS 294 INTERMEDIATE JAVA PROGRAMMING & FUNDAMENTAL DATA STRUCTURES		ECON 202 PRINCIPLES OF MICROECONOMICS	ECON 121 PRINCIPLES OF MICROECONOMICS	
	CS360 PROGRAMMING IN C & C++ and CS360L PROGRAMMING IN C & C++ LAB	CSIS 296 INTRODUCTION TO C++ PROGRAMMING		FIN310 FUNDAMENTALS OF FINANCE	No Equivalent	
	CS380 OPERATING SYSTEMS	No Equivalent		MGT310 PRINCIPLES OF MANAGEMENT	BUS 156 PRINCIPLES OF MANAGEMENT	
	CS455 ALGORITHMS & STRUCTURED PROGRAMMING	No Equivalent		MKT221 HTML & CSS WEB PAGE CONSTRUCTION	CSIS 132 INTRODUCTION TO WEB DEVELOPMENT or CSIS 133 INTERMEDIATE WEB DEVELOPMENT	
	CS457 DATA MODELING & IMPLEMENTATION TECH and CS457L DATABASE TECHNOLOGIES LAB	CSIS 276 INTRODUCTION TO SQL and CSIS 180 FUNDAMENTALS OF DATABASE DESIGN (Meets CS457 requirement; CS457L not met)		MKT310 PRINCIPLES OF MARKETING	BUS 146 MARKETING	
	CS480 JAVA & INTERNET APPLICATIONS	No Equivalent		P450 CAREER DEVELOPMENT	COUN 110 CAREER DECISION MAKING	
	CS480L JAVA PROGRAMMING LAB	CSIS 293 INTRODUCTION TO JAVA PROGRAMMING		Specialization Courses (15 units BSBA)	ACC110L FINANCIAL ACCOUNTING LAB and ACC120L MANAGERIAL ACCOUNTING LAB	No Equivalent
	CS483 FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE and CS483L AI & MACHINE LEARNING LAB	No Equivalent			ACC 120 MANAGERIAL ACCOUNTING	BUS 121 MANAGERIAL ACCOUNTING
	CS487 OBJECT-ORIENTED DESIGN & IMPLEMENTATION	No Equivalent			CPT401 CURRICULAR PRACTICUM	BUS 159A MANAGEMENT INTERNSHIP or BUS 159B MANAGEMENT INTERNSHIP or BUS 159C MANAGEMENT INTERNSHIP or BUS 159D MANAGEMENT INTERNSHIP
	CS494 SENIOR DESIGN PROJECT-I	No Equivalent			CPT402 CURRICULAR PRACTICUM	BUS 159A MANAGEMENT INTERNSHIP or BUS 159B MANAGEMENT INTERNSHIP or BUS 159C MANAGEMENT INTERNSHIP or BUS 159D MANAGEMENT INTERNSHIP
	P450 CAREER DEVELOPMENT	COUN 110 CAREER DECISION MAKING			BAN223 SQL & RELATIONAL DATABASES	CSIS 276 INTRODUCTION TO SQL
	Specialization Courses (15 units BSCS)	CE450 FUNDAMENTALS OF EMBEDDED ENGINEERING		CSIS 255 INTRODUCTION TO PROGRAMMABLE LOGIC CONTROLLERS	BAN335 PYTHON INTRODUCTION FOR COMMERCE	CSIS 250 INTRODUCTION TO PYTHON PROGRAMMING
		CS453 COMPILER DESIGN		No Equivalent	BAN337 JAVASCRIPT	CSIS 135 JAVASCRIPT PROGRAMMING
		CS470 NETWORK ENGINEERING & MANAGEMENT		No Equivalent	Electives (24 units BSBA)	Free Elective Courses
CS477 ETHICAL HACKING & PENETRATION TESTING		CSIS 264 ETHICAL CYBERSECURITY HACKING	Applicants for the Bachelor of Science in Business Administration (BSBA) who have successfully completed an ADT, or AA-T, or AS-T pathway as determined by American River College with a GPA of 2.5 or higher will be automatically accepted into the BSBA program upon completing their admission documentation. The number of units transferable into the BSBA depends on the topic area in which the ADT, AA-T, or AS-T was earned.			
CS 478 BLOCKCHAIN TECHNOLOGY & APPLICATIONS		No Equivalent				
CS481 INTRODUCTION TO DATA SCIENCE	No Equivalent					
CS485 JAVASCRIPT & INTERNET PROGRAMMING	CSIS 135 JAVASCRIPT PROGRAMMING					
Electives (15 units BSCS)	Free Elective Courses	Any course identified as transferable to CSU or UC.				

This agreement will automatically renew each year. In the event of significant curriculum change, SFBU staff is responsible for updating the agreement.