

**CSUSB Department of Mathematics**  
**Undergraduate Program Learning Outcomes (PLOs)**

**Goal 1** Students will demonstrate a conceptual understanding of mathematics

1. Students will demonstrate an understanding of fundamental concepts, algorithms, operations, and relations
2. Students will make connections between mathematical ideas verbally, numerically, analytically, visually, and graphically

**Goal 2** Students will attain procedural fluency in mathematics

1. Students will correctly apply mathematical theorems, properties and definitions
2. Students will calculate efficiently, flexibly, and with appropriate accuracy

**Goal 3** Students will demonstrate adaptive reasoning and problem-solving skills in mathematics

1. Students will justify solutions using a variety of strategies and representations
2. Students will be able to evaluate reasonableness of proposed results using estimation and context
3. Students will be able to critique mathematical reasoning, both correct and flawed

**Goal 4** Students will demonstrate mathematical communication skills

1. Students will demonstrate mathematical communication skills using appropriate mathematical vocabulary and references

**Goal 5** Students will understand and produce correct mathematical proofs

1. Students will understand valid mathematical proofs
2. Students will produce valid mathematical proofs

**Goal 6** Students will reflect on their mathematical experiences

1. Students will be able to analyze mathematical content of the secondary classroom, including content and practice standards
2. Students will connect mathematical concepts within and between secondary and undergraduate levels

**Note:**

**Goals 1-5 are for the BA and BS General/Applied Concentrations.**

**Goal 6 is for the BS Teaching Concentration only.**

Course/PLO	PLO 1		PLO 2		PLO 3			PLO 4	PLO 5		PLO 6	
	1.1	1.2	2.1	2.2	3.1	3.2	3.3	4.1	5.1	5.2	6.1	6.2
MATH 2210	I	I	I		I							
MATH 2220	I	I	I									
MATH 2265				I		I		I				
MATH 2310	I		D		D							
MATH 2320		D	D			D						
MATH 2900		D		I	D			I			I	I
MATH 2270	D		I		D							
MATH 3100							I	I	I	I		
MATH 3140	I	I				D						
MATH 3320			D			D						
MATH 3329			D				D	D	D	D		
MATH 3345	D		D				D			D		
MATH 3372	D			D		D						
MATH 3770			D					D				
MATH 3460			D	D		D						
MATH 3480		D			D							
MATH 4270			D		M	D						
MATH 4300	D		D				D	D	D	D		
MATH 4320			D			M						
MATH 4360			D			D						
MATH 4455	D			D								
MATH 4485	D	D						D				
MATH 4600	D		D				D	D	D	D		
MATH 4900		D		D	D			D			D	D
MATH 5170	D									D		
MATH 5300	M		M				M	M	M	M		
MATH 5310		D			M							
MATH 5529		M							M	M		
MATH 5550	D		M							M		
MATH 5565	D		D					M				
MATH 5600	M		M				M	M	M	M		
MATH 5900		M		M	M			M			M	M