

## Department of Chemistry and Biochemistry Curriculum Map

Course	C1 Atoms	C2 Reps	C3 Ethics	C4 Instrm	C5 EqNeq	SP1 Hyp	SP2 SciKnl	SP3 Comm
120AB	I,D	I,D	I	I	I	I	I	I,D
210/410	I,D	I,D,M		D		I,D	I,D	D
301AB	I,D,M	I,D	I	I,D	I	I		
302/306AB	I,D	I,D	I,D	I,D		I	I,D	I,D
315	D	D,M	D	D			I,D	
316			I,D	D,M		D	D	
325	D,M	D,M			I,D		D	
361AB		D,M			D,M			
371AB		D,M			D,M			
355	D	D,M	D	D,M		D,M	D,M	D,M
390			D					
411A-G			M	D,M		D,M		D,M
421	I,D,M	D,M			D,M			
422			I,D	D		D		D,M
423AB	I,D,M	D,M			D,M		D,M	
490/495/499			D,M	D,M		D,M	D,M	D,M
Biochem Electives 445/472B	D,M	D,M	D,M			D,M (472B)	D,M	D,M (472B)
Org/Inorg Electives 425/431/435	D,M	D,M	D,M (435)				D,M	M
Anl/Envr Elective 436/438	D,M	D,M	D,M	D,M			D,M	M

I – Introduced

D – Developed

M – Mastered

For the most up-to-date information, please contact the program

**California State University Fullerton**  
**Department of Chemistry and Biochemistry**

**COMMON UNDERGRADUATE STUDENT LEARNING OUTCOMES**

The following goals and learning outcomes have been established for students pursuing a baccalaureate degree in chemistry or biochemistry:

*Concepts*

1. **(C1 Atoms)** Recognize that all matter is composed of atoms whose inherent periodic properties determine their interactions and combinations into compounds with specific molecular structure, chemical function and physical properties.
2. **(C2 Reprs)** Explain the various ways that chemists represent and test chemical knowledge in models, theories, mathematical relationships and symbolic notations.
3. **(C3 Ethics)** Illustrate the principles of safe practices and ethical use of scientific knowledge, materials and procedures, and explain their impact on a diverse society.
4. **(C4 Instrm)** Demonstrate literacy in concepts underlying fundamental analytical instrumentation and instrumentation techniques used in chemistry and biochemistry.
5. **(C5 EqNeq)** Discriminate between equilibrium and nonequilibrium systems using fundamental thermodynamic laws and kinetics.

*Skills and Processes*

1. **(S1 Hyp)** Demonstrate the ability to generate and collect data and information through designing and safely implementing hypothesis-driven experiments using contemporary methods and techniques.
2. **( S2 SciKnl)** Analyze, interpret, and retrieve data and appropriate literature, to develop critical thinking and problem solving skills.
3. **(S3 Comm)** Work effectively, independently and cooperatively to communicate data, concepts, skills and processes to experts and nonexperts in the field.