UCLA COMPUTING SPECIALIZATION 2026-2027

COMPUTING SPECIALIZATION: This computing specialization is designed for students who are interested in adding computer programming and computational chemistry to their Chemistry or Biochemistry degree. Refer to the UCLA General Catalog (https://catalog.registrar.ucla.edu/) for course descriptions and requisites.

For more details about this specialization offered in the Department of Chemistry and Biochemistry, consult the Undergraduate Office in Young Hall 3013.

Specialization Requirements	
Major Requirements	Satisfy all the requirements for a bachelor's degree in the specified major within the Chemistry and Biochemistry department.
Program in Computing (COMPTNG)	10A, 10B
Program in Computing Elective (Choose One)	10C, 15, 16A, 20A, 40A
Two Electives (8 units)	CHEM C115A, C115B, C123A, C123B, C125, C126A, C145, COM SCI C121, C122

Important Notes

- Courses must be completed with a combined GPA of at least 2.0.
- Students must petition for admission to this program AFTER they complete COMPTNG 10A and 10B.
- Petitions should be filed in the Undergraduate Office in Young Hall 3013.
- Students graduate with a bachelor's degree in their major and a specialization in computing.

Course Information		
Course	**Course Title**	**Pre-requisite(s)**
Program in Computing		
10A	Intro to Programming	None (PIC 1 if no prior computing experience)
10B	Intermediate Programming	COMPTNG 10A
10C	Advanced Programming	COMPTNG 10B
15	Intro to Lisp and Symbolic Computation	COMPTNG 10A
16A	Python with Applications I	COMPTNG 10A
20A	Principles of Java Language with Applications	COMPTNG 10A
40A	Intro to Programming for the Internet	COMPTNG 10A, 10B
Chemistry		
C115A	Advanced Quantum Chemistry w/ Laboratory I	CHEM 110B, MATH 32B, 33A
C115B	Advanced Quantum Chemistry w/ Laboratory II	CHEM 113A, C115A, MATH 32B, 33A
C123A	Advanced Thermodynamics and Statistical Mechanics w/ Laboratory I	CHEM 110B or 156, MATH 33A
C123B	Advanced Thermodynamics and Statistical Mechanics w/ Laboratory II	CHEM 110B or 156, C123A, MATH 33A
C125	Introduction to Python Programming and Machine Learning	CHEM 14C or CHEM 30A
C126A	Computational Methods for Chemists	CHEM 110A, 113A, MATH 33A
C145	Theoretical and Computational Organic Chemistry	CHEM 30C, 113A
Computer Science		
C121	Probabilistic Models in Computational Genomics	COMPTNG 10C and one course from C&EE 110, EC ENGR 131A, MATH 170A, 170E, or STATS 100A.
C122	Algorithms in Computational Genomics	COMPTNG 10C and one course from C&EE 110, EC ENGR 131A, MATH 170A, 170E, or STATS 100A.

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