

BACHELOR OF ARTS IN CHEMISTRY

Major Requirements Worksheet

2012-2013 Catalog

Name: _____

Student ID: _____

Note: This checklist is not intended to replace advising from the major department. Students should consult with the major advisor to determine the appropriate sequence of courses. This checklist is to inform students of major requirements and course prerequisites only. CSULB Enrollment Services prepares the Academic Requirements Report, which is the official graduation verification. The Chemistry Degree Progress Rules are as follows: Freshman need to complete MATH 122 and CHEM 111A within one calendar year. CHEM 111B and either CHEM 320A or CHEM 251 within two calendar years, all with a grade of "C" or better. Transfer students: need to complete MATH 123 and CHEM 111B within one calendar year. CHEM 320A and CHEM 251 within 2 calendar years. All with a grade of "C" or better.

Grade	Course #	Course Title	Need to take	Prerequisites
	CHEM 111A	General Chemistry (5)		A passing score on the CPT, and either MATH 113*, or 117*, or 119A*, or 122*
	CHEM 111B	General Chemistry (5)		CHEM 111A*
	CHEM 251	Quantitative Analysis (4)		CHEM 111B* (highly recommended to take CHEM 251**)
	MATH 122	Calculus I (4)		MDPT placement** or MATH 111* and 113*, or MATH 117*
	MATH 123	Calculus II (4)		MATH 122*
	PHYS 151	Mechanics and Heat (4)		MATH 122 (can also be a Corequisite)
	PHYS 152	Electricity and Magnetism (4)		PHYS 151; Pre/Corequisite MATH 123

Upper Division (for upper division advising, see your faculty advisor. **Take ALL of the following courses:**

	CHEM 320A	Organic Chemistry (3)		CHEM 111B* (CHEM 251 is also recommended)
	CHEM 320B	Organic Chemistry (5)		CHEM 320A*
	CHEM 331	Inorganic Chemistry (3)		CHEM 111B*, 251*
	CHEM 361	Chemical Communications (3)		GE Foundation requirement, concurrent or previous enrollment in CHEM 320A
	CHEM 420	Advanced Organic Chemistry Laboratory (3)		CHEM 251, CHEM 320B and either CHEM 361, or 466
	CHEM 451	Instrumental Methods of Analysis (5)		PHYS 152*, CHEM 251*, 361*; 371B* or 377B*

Select ONE pair from the following:

	CHEM 371A	Physical Chemistry: Thermodynamics and Kinetics (3) AND		CHEM 251*, MATH 123*, PHYS 152*; MATH 224 (may be taken concurrently)
	CHEM 371B	Physical Chemistry: Quantum Mechanics and Spectroscopy (3) OR		CHEM 251*, MATH 123*, PHYS 152*; MATH 224 (may be taken concurrently)
	CHEM 377A	Fundamentals of Physical Chemistry (3) AND		CHEM 251*, MATH 123*, and PHYS 100B* or 152*
	CHEM 377B	Fundamentals of Physical Chemistry (3)		CHEM 251*, MATH 122*, PHYS 100B* or 152*; MATH 123 (may be taken concurrently)

Take a minimum of **3 additional units** chosen with advisor consultation from the following: CHEM 332, 373, 421, 431, 441A, B, 480, 496. Students must consult an advisor to select additional courses to meet the student's individual goals and interests.

* Must receive a "C" or better
 **See catalog for more detail