

# BACHELOR OF ARTS IN CHEMISTRY (IMPACTED)

## Major Requirements Worksheet

2015-2016 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 CHEM 220A within two calendar years, all with a grade of "C" or better. Transfer students need to complete CHEM 220A and PHYS 151 within one calendar year, all with a grade of "C" or better.*

*Pre-Chemistry majors must complete their GE Foundation courses, and the **highlighted** areas below all with a "C" or better and a cumulative GPA of 2.5, by 60 units to be considered for the major.*

Semester	Grade	Course #	Course Title	Prerequisites <i>Must have grade of "C" or better</i>
		MATH 122	Calculus I (4)	MDPT placement or MATH 111 and 113
		MATH 123	Calculus II (4)	MATH 122
		PHYS 151	Mechanics and Heat (4)	<i>Pre/corequisite:</i> MATH 122
		PHYS 152	Electricity and Magnetism (4)	PHYS 151; <i>Pre/corequisite:</i> MATH 123

Select either:

		CHEM 111A	General Chemistry (5) <b>AND</b>	A passing score on the CPT; <i>Corequisite:</i> MATH 109 or higher CHEM 111A and MATH 113 or 115 or 119A or 122
		CHEM 111B	General Chemistry (5)	

OR

		CHEM 112A	Advanced General Chemistry (5) <b>AND</b>	Department Consent
		CHEM 112B	Advanced General Chemistry (5)	CHEM 112A

Take ALL of the following courses:

		CHEM 220A	Organic Chemistry I (3)	CHEM 111B
		CHEM 220B	Organic Chemistry II (3) (*lab required same semester)	CHEM 220A <i>Corequisite:</i> CHEM 320L

UPPER DIVISION COURSES (See your faculty advisor.)

Take ALL the following courses:

		CHEM 320L	Organic Chemistry Laboratory (2)	CHEM 220A; <i>Corequisite:</i> CHEM 220B
		CHEM 331	Inorganic Chemistry (3)	CHEM 111B
		CHEM 361	Chemical Communications (3)	GE Foundation requirement; GVAR <i>Pre/Corequisite:</i> CHEM 220A
		CHEM 420	Advanced Organic Chemistry Laboratory (3)	CHEM 220B or CHEM 320L and <i>either</i> CHEM 361 or 466
		CHEM 498	Senior Thesis	Major GPA 3.0 or >, 3 units of CHEM 496 with a grade of "A", consent of instructor
		CHEM 451	Instrumental Methods of Analysis (5)	PHYS 152, CHEM 361; 371B or 377B
		CHEM 461	Chemistry Capstone (1)	Department Consent

Select ONE pair from the following:

		CHEM 371A	Physical Chemistry: Thermodynamics and Kinetics (3) <b>AND</b>	CHEM 111B, MATH 123, PHYS 152. <i>Pre/corequisite:</i> MATH 224
		CHEM 371B	Physical Chemistry: Quantum Mechanics and Spectroscopy (3)	

OR

		CHEM 377A	Fundamentals of Physical Chemistry (3)	CHEM 111B, MATH 123, and PHYS 152 <b>AND</b>
		CHEM 377B	Fundamentals of Physical Chemistry (3)	

Take an additional **7 units** of chemistry electives including a *minimum* of 3 additional units chosen with advisor consultation from the following CHEM 332, CHEM 373, CHEM 421, CHEM 431, CHEM 441A,B or 448, CHEM 480, CHEM 496.