

# Minor in Chemistry

## Minor Requirements Worksheet

### 2014-2015 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 minor requirements and course prerequisites only. CSULB Enrollment Services prepares the Academic Requirements Report, which is the official graduation verification. Before adding any minors, students must check to see if this addition will affect CSULB's Timely Graduation for Undergraduate Students policy. Under this policy, students may earn up to 120% of the number of units required for the degree in their declared primary major. In addition, the policy requires that a student must file a Request to Graduate form with Enrollment Services by the time the student has completed 100% of the units required for the declared primary major. Any additional degree objectives (e.g., majors, minors, certificates, etc.) must be completed within the 120% unit limit. For more information, see [http://www.csulb.edu/depts/enrollment/graduation/bachelors/timely\\_grad\\_ugrad.html](http://www.csulb.edu/depts/enrollment/graduation/bachelors/timely_grad_ugrad.html).*

The minor in Chemistry (minimum of 22 units) is available to any non-Chemistry or non-Biochemistry major.

Semester	Grade	Course #	Course Title	Prerequisites** (all with grades of "C" or better)
		CHEM 111A	General Chemistry (5)	A passing score on the CPT; <i>Corequisite:</i> MATH 109 or higher
		CHEM 111B	General Chemistry (5)	CHEM 111A and MATH 113

Select an additional 12 units. A minimum of nine units must be taken from upper division chemistry courses. Students may use courses from only ONE of the paths to meet the requirements of the minor.

Semester	Grade	Course #	Course Title	Prerequisites** (all with grades of "C" or better)

#### **ORGANIC CHEMISTRY PATHS**

If you choose to take Organic Chemistry you may take classes from only one of the paths to meet the requirements of the minor:

##### **Path 1: CHEM 227**

		CHEM 227	Fundamentals of Organic Chemistry (3)	CHEM 111A; CHEM 111B is recommended
--	--	----------	---------------------------------------	-------------------------------------

##### **Path 2: CHEM 220A and 220B**

		CHEM 220A	Organic Chemistry I (3)	CHEM 111B; CHEM 223A must be taken concurrently if required by a degree plan.
		CHEM 220B	Organic Chemistry II (3)	CHEM 220A; <i>Corequisite:</i> CHEM 223B or CHEM 320L.

#### **PHYSICAL CHEMISTRY PATHS**

If you choose to take Physical Chemistry you may take classes from only one of the paths to meet the requirements of the minor:

##### **Path 1: CHEM 371A and 371B**

		CHEM 371A	Thermodynamics and Kinetics (3)	CHEM 111B, MATH 123, and PHYS 152
		CHEM 371 B	Quantum Mech. and Spectroscopy (3)	CHEM 111B, MATH 123, and PHYS 152

##### **Path 2: CHEM 375**

		CHEM 375	Physical Chemistry for Engineers (3)	MATH 123; PHYS 151 and either PHYS 152 or EE 210/EE 210L; CHEM 310; CHEM 111A/B; and CHEM 220A or 227
--	--	----------	--------------------------------------	---

##### **Path 3: CHEM 377A and 377B**

		CHEM 377A	Fundamentals of Phys. Chemistry (3)	CHEM 251, MATH 123, and PHYS 152.
		CHEM 377 B	Fundamentals of Phys. Chemistry (3)	CHEM 251, MATH 122, and PHYS 152. <i>Corequisite:</i> MATH 123.

\*The following courses are not acceptable towards the minor: CHEM 90, 100, 101, 105, 140, 224, 302, and 361.