

# **Chemical Measurement Science Minor**

# **University of Michigan - Department of Chemistry**

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The Chemical Measurement Science minor provides concentrated exposure to analytical chemistry that is appropriate across a wide variety of scientific areas.

### **Exclusions: The Chemical Measurement Science minor is NOT open to student's majoring in:**

Chemistry, Biochemistry, Chemical Science, Interdisciplinary Chemical Sciences, Biomolecular Science

## **Prerequisites:**

- AP credit for Physics (125 or 139) will fulfill the Physics requirement.
- AP credit for Math (120) will fulfill the Math requirement.

Course #	Course Description	Completed	Typically Offered	Credits
PHYS 150	Fundamental Physics for the Life Sciences I		F,W,Sp	4
OR				
PHYS 140	General Physics I		F,W,Sp	4
MATH 115	Calculus I		F,W,Sp,Su	4

# Minor Program requirements (at least 18 credit hours): Core courses

Course #	Course Description	Completed	Typically Offered	Credits
* CHEM 210	Structure and Reactivity I		F,W,Sp	3
CHEM 211	Investigations in Chemistry: Laboratory		F,W,Sp	2
CHEM 260	Chemical Principles		F,W	3
OR				
CHEM 370	Physical and Chemical Principles Behind Biology and Medicine		F	3
CHEM 241	Introduction to Chemical Analysis		F,W	2
CHEM 242	Introduction to Chemical Analysis Laboratory		F,W	2
CHEM 447	Physical Methods of Analysis		W	3

#### **Elective Courses:** Electives should be selected in consultation with an advisor.

Course #	Course Description	Completed	Typically Offered	Credits
CHEM 483	Advanced Methods in Physical Analysis		W	3
CHEM 545	Analytical Chemistry			3

<sup>\*</sup>Although prerequisites are not enforced, students who elect CHEM 483 or 545 should consider taking, or having taken, advanced physical chemistry beyond the CHEM 260/370 level.

#### **NOTES:**

\* Students who do not place into CHEM 210 are strongly recommended to take CHEM 130. CHEM 130 or AP credits earned for CHEM 130 DO NOT count toward the minor.