

## 2025-2026 Department of Chemistry TA Position Descriptions

Proficiency in English and good communication skills are required for all TA positions.

Hours range from ~15 hours for a Marker position, to 40-60 hours for a first/second-year Lab/Tutorial, to ~108-120 hours for a CHEM 397/398/399 Lab. Students may normally be assigned a maximum of ~108-120 hours per term, which may be distributed over multiple positions.

The majority of positions are available in the lab courses, particularly CHEM 112 A/B lab, APSC 102 lab, CHEM/ENCH 211 and 212 lab, CHEM 223/ENCH 245 lab, CHEM 282 lab, and CHEM/ENCH 397/398/399 lab. Tutorial or Marker positions are less numerous, and there are only a few positions available for Lecture and Head TA. Keep this in mind when selecting your top 4 choices in the MS Forms application.

Course Term Offered	TA Duty	TA Qualifications
APSC 102, fall	Lab	Knowledge of general chemistry.
CHEM 112 A/B, fall-winter	Lab	Excellent organizational and communication skills; knowledge of general chemistry.
CHEM 112 A/B, fall-winter	Tutorial	Excellent communication skills, knowledge of general chemistry; experience teaching is an asset.
CHEM 112 A/B, fall-winter	Lecture	Excellent communication skills, familiarity with online classroom management system, knowledge of general chemistry; experience teaching is an asset.
CHEM 113/114, fall-winter	Tutorial (online only)	Excellent communication skills, familiarity with online classroom management system, knowledge of general chemistry; experience teaching is an asset.
CHEM/ENCH 211, fall	Lab	Inorganic, transition metal and organic chemistry.
CHEM/ENCH 211, fall	Theoretical Lab	Knowledge of computational chemistry. Experience using Gaussian. Excellent presentational skills.
CHEM/ENCH 211, fall	Tutorial	Inorganic, transition metal and organic chemistry. Good communication and organizational skills.
CHEM/ENCH 212, fall	Lab	Physical organic chemistry (reaction mechanisms and kinetics).
CHEM/ENCH 212, fall	Tutorial	Physical organic chemistry (reaction mechanisms and kinetics). Good communication and organizational skills.
CHEM/ENCH 213, fall	Lab	General and analytical chemistry (UV-VIS, fluorescence and atomic spectroscopy).
CHEM/ENCH 213, fall	Tutorial	General and analytical chemistry (UV-VIS, fluorescence and atomic spectroscopy).

CHEM 221, winter	Lab	General and physical chemistry (including redox, thermodynamics and electrochemistry).
CHEM 221, winter	Tutorial	General and physical chemistry (including redox, thermodynamics and electrochemistry). Good communication and organizational skills.
CHEM/ENCH 222, winter	Tutorial	Spectroscopy (UV-vis, IR, NMR, MS). Good communication and organizational skills. Use of NMR and/or MS in own graduate research an asset.
CHEM 223/ENCH 245, winter	Lab	Organic chemistry.
CHEM 223/ENCH245 winter	Tutorial	Organic chemistry. Good communication and organizational skills.
CHEM 224, winter	Tutorial	Good communication and organizational skills. Theoretical chemistry. Good knowledge of calculus and linear algebra. Some experience with numerical methods.
CHEM 281, fall	Marker	Marking midterm and final exams. Must have a strong understanding of 2 <sup>nd</sup> year organic chemistry, a good eye for correctly drawn organic molecules, formal charges, stereochemistry, and curly arrow depiction of mechanisms. Must have excellent communication skills; online tutorial sessions will need to be given; online forum monitoring and editing tasks; prior experience in online organic chemistry course delivery desirable
CHEM 281, fall	Head TA	Head TA will be responsible for scheduling and coordination of TA team during the course. Advising TA team on technical requirements and solutions for Zoom tutorial meetings, disseminating problem sets and posting upcoming activities for students.
CHEM 282, winter	Lab	Organic chemistry. Marking midterm and final exams. Must have a strong understanding of 2 <sup>nd</sup> year organic chemistry, a good eye for correctly drawn organic molecules, formal charges, stereochemistry, and curly arrow depiction of mechanisms. Must have excellent communication skills.
CHEM 282, winter	Head TA	Head TA will be responsible for scheduling and coordination of TA team during the course. Advising TA team on technical requirements and solutions for Zoom tutorial meetings, disseminating problem sets and posting upcoming activities for students.
CHEM/ENCH 311, fall	Tutorial	Physical organic chemistry. Must have a strong understanding of mechanisms in organic chemistry and their analysis from the perspective of orbitals, linear free energy relationships, kinetic isotope effects, and free energy diagrams.
CHEM/ENCH 312, fall	Tutorial	Excellent communication and organizational skills; knowledge of transition metal chemistry.
CHEM/ENCH 313, fall	Tutorial	Theoretical chemistry.
CHEM/ENCH 321, winter	Marker	Instrumental chemical analysis.

CHEM/ENCH 322, winter	Tutorial	Spectroscopy.
CHEM/ENCH 323, winter	Marker	Biological chemistry.
CHEM/ENCH 326, winter	Marker	Green chemistry.
CHEM/ENCH 397 A/B 398/399, fall-winter	Lab	General chemistry, spectroscopy (NMR, FTIR, UV-VIS, Mass-Spec), reaction mechanisms.
CHEM/ENCH 397 A/B 398/399, fall-winter	Tutorial	General chemistry, spectroscopy (NMR, FTIR, UV-VIS, MassSpec); reaction mechanisms. GC and HPLC. Good communication and organizational skills.