



Twin Cities Campus

Chemical Physics Minor

Chemistry

College of Science and Engineering

Link to a [list of faculty](#) for this program.

Contact Information:

Chemical Physics Program, University of Minnesota, 137 Smith Hall, 207 Pleasant Street SE, Minneapolis, MN 55455 (612-626-7444; fax: 612-626-7541)

Email: chmapply@umn.edu

Website: <http://chem.umn.edu/academics/graduate/chemical-physics>

- Program Type: Graduate minor related to major
- Requirements for this program are current for Fall 2018
- Length of program in credits (Masters): 6
- Length of program in credits (Doctorate): 12
- This program does not require summer semesters for timely completion.

Along with the program-specific requirements listed below, please read the [General Information](#) section of the catalog website for requirements that apply to all major fields.

Chemical physics focuses on research areas where the techniques of chemistry and physics are combined for the study of atoms and molecules; their interactions in gases, liquids, and solids, and the detailed structure and dynamics of material changes. Areas of research and specialization include spectroscopy, optical properties, laser applications, molecular collisions, chemical dynamics, quantum mechanics, computational chemistry, statistical mechanics, thermodynamics, low-temperature behavior, polymers and macromolecules, surface science, biochemistry, and biochemical and heterogeneous catalysis.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Prerequisites for Admission

For an online application or for more information about graduate education admissions, see the [General Information](#) section of the catalog website.

Program Requirements

Use of 4xxx courses towards program requirements is not permitted.

Minor field coursework, determined by the chemical physics director of graduate studies, student, and advisor, may include any 5xxx- or 8xxx-level CHPH, CHEM, or PHYS courses taken on the A-F grading basis.

Program Sub-plans

Students are required to complete one of the following sub-plans.

Students may not complete the program with more than one sub-plan.

Masters

The master's minor requires a minimum of 3 credits each in chemistry (CHEM) and physics (PHYS).

Doctoral

The doctoral minor requires a minimum of 6 credits each in chemistry (CHEM) and physics (PHYS).