

Department of Coatings and Polymeric Materials

Department Information

- www.ndsu.edu/cpm (<http://www.ndsu.edu/cpm/>)

Undergraduate Programs of Study

- Coatings and Polymeric Materials (minor)

Department Description

The Department of Coatings and Polymeric Materials is internationally known for the excellence of its educational and research programs. Close ties with industry and government agencies are maintained to assure that teaching and research programs remain in step with the rapidly changing science and technology of the area.

Knowledge of polymers is a desirable foundation for a career as a professional chemist in industry. More than 80 percent of industrial chemists work with polymers, and many physicists and engineers also work with polymer-related materials.

Within the broad area of polymers, the department puts special emphasis on coatings. Coatings are so often encountered in everyday life that they may be taken for granted. Paint on walls, coatings on automobiles or aircraft, liners for the interior of beverage cans, coatings to protect bridges from corrosion, coatings on magnetic tapes and computer chips, and body implants are only a few selected examples.

Closely related fields are adhesives, printing inks, plastics, cosmetics, food, and biotechnology. Only five other universities in the U.S. offer programs in coatings and employment opportunities far exceed the number of graduates.

To encourage students to study in the field, companies and organizations fund undergraduate scholarships of up to \$2,500 a year. Scholarship applications are made through the online scholarship application system.

Undergraduates interested in polymers and coatings are encouraged to major in Chemistry (<http://catalog.ndsu.edu/past-bulletin-archive/2021-22/programs-study/undergraduate/chemistry/>) or Mechanical Engineering (<http://catalog.ndsu.edu/past-bulletin-archive/2021-22/programs-study/undergraduate/mechanical-engineering/>) (ME). Coatings and Polymeric Materials offers graduate level programs leading to the M.S. and Ph.D. degrees in Coatings and Polymeric Materials, or a Ph.D. in Materials and Nanotechnology.

The Coatings and Polymeric Materials minor provides excellent preparation for professional employment at the B.S. level and for graduate school. Students are strongly advised to plan their programs so that the entire coatings course can be taken during the same academic year. Chemistry majors with the CPM minor also are required to take CPM 473 Polymer Synthesis prior to graduation.