

Biochemistry Lecture and Lab Courses



Register for these transferable courses offered at MCTC every Spring, with lecture (CHEM 2610) and lab (CHEM 2620) components

For more information you may contact: Dr. Rekha at Rekha.Ganaganur@minneapolis.edu or visit www.minneapolis.edu

- If you are a science or engineering student looking for higher science courses offered at MCTC that are transferable to the University of Minnesota or other schools, MCTC's biochemistry courses might be right for you!
- If you are looking for gaining higher level laboratory hands-on experience for better positioning yourself for jobs, internships, and research in various workplaces, the biochemistry lab course provides such experiences.
- Meets biochemistry course requirements for biology, chemistry, biotechnology, pre-medical, pre-veterinary, dental, pre-pharmacy, biomedical engineering, and various other majors.
- The laboratory course CHEM 2620 is designed to provide you with hands-on experiences in biochemical techniques including protein expression, extraction, purification and characterization
- Contents of the courses were developed in consultation with industry employers and academic transfer institutions.

Take advantage of the low-cost tuition at MCTC!

Biochemistry Theory and Principles (CHEM 2610); 3.0 credits

Prerequisites: BIOL 2200, CHEM 1152, CHEM 2204

Biochemistry Laboratory (CHEM 2620); 2.0 credits;

Prerequisite: Analytical Chemistry; **Pre- or Co-requisite:** BIOT 2320; CHEM 2610 (biochemistry lecture)

- The 2610 and 2620 courses are transferable to University of Minnesota, St. Cloud State University and to other institutions.
- You will explore the applications not only to chemical and biochemical labs but to many disciplines in life sciences, environmental science, food science, nutrition, medical technology, forensic science, etc.
- Guest-lectures from professionals from research labs and industry, and field-trips will be an integral part of the course.
- The course provides an opportunity to explore an independent laboratory project.
- You will learn about the importance of biochemical techniques and downstream processing in bioscience industry.

Course components meet the expectations of various industry and university employers for internships and laboratory support positions.

CHEM 2610: This lecture course introduces the fundamental principles in biochemistry. You will learn the structure and function of biomolecules, kinetics of enzyme-catalyzed reactions, major metabolic pathways that synthesize and degrade biomolecules

CHEM 2620: This laboratory course will use an applications-based approach to biochemical techniques. You will apply the concepts learned in the biochemistry lecture course to gain experience in protein purification and characterization, modern molecular biology techniques, enzyme kinetics and immunological techniques. You will extensively utilize biochemical techniques and instrumentation widely used in academic and industry laboratories. You will apply the regulatory affairs standards.