BIOCHEMISTRY (M.S.)

https://colsa.unh.edu/mcbs/grad/biochemistry/biochemistry-ms

Description

The Biochemistry graduate program provides advanced knowledge, rigorous training, and analytical skills in the conduct of original research. Outstanding and diverse research opportunities are provided by nationally and internationally recognized faculty research programs in cellular structure and function, genome stability, protein structure/function, lipid metabolism, signal transduction, transcriptional and translational regulation, and mouse behavior analysis. Enabling technologies in genomics, proteomics, glycomics, neurobiology, and structural biology are available in dedicated core facilities and in individual research labs. The collaborative environment of the program fosters interdisciplinary approaches encompassing biology, chemistry, engineering and computer sciences.

Requirements

Student must meet the Graduate School's requirements for the master's degree (minimum 30 credits) and are expected to develop a culminating thesis based on the completion of a research project. Demonstration of proficiency in physical chemistry and biochemistry will be assessed in the first year by examination or coursework. All candidates for the M.S. degree must pass an oral examination based on the thesis or project report and on the graduate courses completed in the degree program.

Credits: A minimum of 30 graduate credits is required including 6-10 master's thesis credits (BCHM 899 Master's Thesis). Graduate credits are earned for courses numbered 800-999. Up to 12 credits earned in non-Biochemistry courses numbered 700-799 may be taken for graduate credit upon approval of the Graduate School. Typically, master's students enroll in BCHM 851-852 Principles of Biochemistry during their first year of study, unless diagnostic examinations indicate that undergraduate preparation in general biochemistry is sufficient.

Thesis Committee: During the first semester, the Graduate Program Coordinator will assist the student in choosing courses. Following selection of the research advisor, the student and the advisor jointly agree on the members of the Thesis Committee during the second semester and communicate this recommendation to the Biochemistry Graduate Program Coordinator. A Master's Supervisory Committee Nomination Form must be completed and submitted to the Graduate School. The Thesis Committee consists of the advisor as chair and two other members. The committee meets soon after selection of a thesis project to approve the student's proposed curriculum.

Courses required by the Thesis Committee must be taken for credit and completed with a passing grade (B-minus or better). Courses recommended by the committee may be audited or taken for credit, but in either case the student is expected to be familiar with the subject matter of these courses. It is recommended that the student meet with their Thesis Committee every semester to review progress of the thesis project and academics.

Written Thesis and Oral Presentation: Students must prepare a written master’s thesis for submission to their Thesis Committee. A copy of the complete thesis must be made available to the committee at least 14 days before the date of the final examination. Consult the Thesis and Dissertation Manual provided by the Graduate School for details on preparing the manuscript.

The oral examination of the master’s thesis consists of two parts: an oral presentation of the research that is open to the public and an oral defense of the master’s thesis conducted by the Thesis Committee.

Final approval of the master’s thesis will be determined by the Thesis Committee. The final thesis must be submitted to the Graduate School via the procedures outlined in the Thesis and Dissertation Manual. As their program nears completion, students must submit the Intent-to-Graduate prior to the deadline posted on the Graduate School's calendar.

5 Year Accelerated Master's Degree Requirements

This accelerated five-year program leading to a combined bachelor's degree and master's degree in biochemistry is designed for highly motivated and qualified UNH undergraduate students seeking additional training to further their career goals as researchers in the life sciences. Admission to the combined degree program is highly competitive.

Students wishing to pursue this program must have a grade point average greater than 3.2 at the time of application. A thesis adviser must be identified during the junior year, and the approval of the adviser must be obtained. Prior to the first semester of the senior year, the student must formally apply to the Program through the Graduate School and receive early admission. The requirement for the Graduate Record Examination is waived for combined degree applicants. Thirty credits of graduate level (800-999) coursework (including dual-credit courses) must be completed. Six to eight credits of graduate-level courses must be taken during the senior year and are applied to both the B.S. and M.S. requirements. All other requirements for the M.S. degree must be completed as stated above.