



Department of Biochemistry  
and Molecular Biology

# Masters Program

## Mission

The Master of Science in Biochemistry and Molecular Biology, is a one to two year program providing an opportunity for individuals desiring careers in health sciences, industry, education or research to prepare themselves for either professional studies or positions demanding mastery of science beyond the baccalaureate level.

### Prospective Students will be those:

- whose long-term goal is acquisition of a PhD but who need additional course work and experience to be successful
- wishing to attend professional school
- planning a career in industry
- desiring to teach at the level of community college



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# Biochemistry & Molecular Biology

## Non-Thesis Masters Track

The track is 30 credit hours, allowing completion in 11 months if desired.

- Emphasis on coursework and experiences that will prepare the students for careers other than independent research.
- Students will experience seminars and comprehensive exams that are tailored for their expected careers.
- Elective courses will allow students to choose course work based on their individual goals.

## INDIVIDUAL LABORATORY EXPERIENCES

Students will have unique experiences in bench science with training in basic and advanced laboratory techniques used in Biochemistry and Molecular Biology.

## COURSEWORK INCLUDES:

- Seminar with Discussion
- Fundamentals of Biomolecules
- Molecular Cell Biology
- Fundamentals of Receptors & Cell Signaling
- Metabolism
- Proteins & Nucleic Acids
- Laboratory Training in BMB: Basic
- Laboratory Training in BMB: Advanced
- Electives

## Thesis Masters Track

The track is full-time enrollment for a minimum of two years.

- Emphasis on research and development of critical reasoning skills.
- Students will be trained in independent hypothesis generation.

## CHOICE OF A MENTOR AND RESEARCH PROJECT

Students may directly join a laboratory or rotate during the first semester of training.

Stipend and tuition waiver are available once a student has joined a laboratory. Research areas include molecular biology of cancer (breast, colon, leukemia, liver, pancreas, prostate), cellular processes (cell signaling, endocytosis and trafficking, cell-cell communication, glycobiology, structural biology), and genome-wide and whole cell analyses (microbial interactions, epigenetics, gene expression).

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## Omaha, Nebraska

### AFFORDABILITY

Omaha is the most affordable U.S. city and among the best for young professionals according to Forbes magazine.

### ARTS AND CULTURE

Omaha boasts the NCAA College World Series of baseball, draws world-class musical performers and boasts America's best rated zoo. As the hometown of Saddle Creek Records, Omaha has developed a legendary Indie rock music scene. Outdoor festivals and performances of music and theater are common in the summer.



### For more information contact co-directors:

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