

# Biochemistry (MR)

## Master's Degree Requirements

Degrees earned will be distributed as: "Master of Biochemistry" without focus area specifications.

Code	Title	Hours	Counts towards
<b>Core Courses</b>			<b>13</b>
BCH 701	Macromolecular Structure		
BCH 703	Macromolecular Synthesis and Regulation		
BCH 705	Molecular Biology Of the Cell		
BCH 801	Seminar In Biochemistry <sup>1</sup>		
<b>Elective Courses</b>			<b>17</b>
See "Elective Courses" listed below <sup>2</sup>			
<b>Total Hours</b>			<b>30</b>

<sup>1</sup> Every semester for 2 years, 4 credit hours total; 1/semester

<sup>2</sup> Students may choose other courses approved in conjunction with the academic committee

## Elective Courses

Code	Title	Hours	Counts towards
<b>Select courses from any category below</b>			<b>17</b>
<b>Molecular and Structural Biochemistry</b>			
BCH 555	Proteins and Molecular Mechanisms	3	
BCH 590	Special Topics in Biochemistry	1-6	
BCH 770	Enzyme Kinetics and Mechanisms	3	
BCH 760	Protein Crystallography and Macromolecular Modeling	3	
<b>Plant and Microbial Biology</b>			
MB 414	Microbial Metabolic Regulation	3	
MB 505	Food Microbiology	3	
PB 580	Introduction to Plant Biotechnology	3	

PB 595	Special Topics in Plant Biology	1-6
HS 701	Plant Metabolism	1
MB 725	Fermentation Microbiology	3

### Food, Bioprocessing and Nutrition Science

NTR 419	Human Nutrition and Chronic Disease	3
NTR 500	Principles of Human Nutrition	3
NTR 501	Advanced Nutrition and Metabolism	3
NTR 510	Maternal and Infant Nutrition	3
NTR 555	Exercise Nutrition	3
NTR 557	Nutraceuticals and Functional Foods	3
NTR 785	Digestion and Metabolism in Ruminants	3

### Physiology

PHY 503	General Physiology I	3
PHY 504	General Physiology II	3
PHY 780	Mammalian Endocrinology	3

### Animal Science

ANS/BCH 571	Regulation of Metabolism	3
ANS 701	Protein and Amino Acid Metabolism	3
ANS 709	Energy Metabolism	3

### Prestige Poultry Science

PO 504	Avian Anatomy and Physiology	4
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## Additional Requirements

- Successful completion of the Master's degree requires a minimum of 30 credit hours.
- At least 24 credit hours of letter-graded courses ("A," "B," "C", etc.) must be included in the program.

## Faculty

Joe Barycki

Dennis Brown

Linda Kay Hanley-Bowdoin

Eric S. Miller

Melanie Simpson

Colleen Jennifer Doherty

Michael B. Goshe

Charles C. Hardin

Thomas Makris

Flora Meilleur

Robert B. Rose

Joshua J. Strable

Guozhou Xu

Ruben Rellan Alvarez

Abdulkerim Eroglu

Arion Kennedy

Xiaojing Liu

Ryan Charles Sartor

Joshua Strable

Jose Trinidad Ascencio-Ibanez

Raquel Hernandez

David G. Presutti

Paul Douglas Swartz

Cynthia L. Hemenway

Horace R. Horton

Joseph Stephan Kahn

James Arthur Knopp

Earl S. Maxwell

William Laubach Miller

James W. Moyer

Ron Ross Sederoff

Harold E. Swaisgood

Elizabeth C. Theil

Paul L. Wollenzien

Jason Locasale

Michael Milburn

Whitney Stutts

Peter Thompson