# Nutrition (PhD)

## Degree Requirements

### Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCH 553</td>
<td>Biochemistry of Gene Expression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or BCH 571</td>
<td>Regulation of Metabolism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NTR 701</td>
<td>Protein and Amino Acid Metabolism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NTR 706</td>
<td>Vitamin Metabolism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NTR 708</td>
<td>Energy Metabolism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NTR 775</td>
<td>Mineral Metabolism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NTR 801</td>
<td>Doctoral Seminar</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Non-NTR 700-level Course

The "Non-NTR 700-level Course" will be determined in conjunction with the academic committee.

### PhD Core Courses

Select at least two courses from "Core Courses" listed below.

### Doctoral Dissertation Research

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTR 895</td>
<td>Doctoral Dissertation Research</td>
<td></td>
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</tr>
</tbody>
</table>

### Elective Courses

"Elective Courses" that will be applied to reach 72 credit hours will be determined in conjunction with the academic committee.

### Total Hours

72

## Core Courses

Select at least two courses from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCH 453/553</td>
<td>Biochemistry of Gene Expression</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BCH 571</td>
<td>Regulation of Metabolism</td>
<td>3</td>
<td></td>
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<tr>
<td>NTR 500</td>
<td>Principles of Human Nutrition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 501</td>
<td>Advanced Nutrition and Metabolism</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 510</td>
<td>Maternal and Infant Nutrition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 515</td>
<td>Comparative Nutrition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 521</td>
<td>Life Cycle Nutrition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 525</td>
<td>Feed Manufacturing Technology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 550</td>
<td>Applied Ruminant Nutrition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 554</td>
<td>Lactation, Milk, and Nutrition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 555</td>
<td>Exercise Nutrition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 557</td>
<td>Nutraceuticals and Functional Foods</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 561</td>
<td>Equine Nutrition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 565</td>
<td>Advanced Canine and Feline Nutrition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 594</td>
<td>Special Topics in Nutrition</td>
<td>1-6</td>
<td></td>
</tr>
<tr>
<td>NTR 701</td>
<td>Protein and Amino Acid Metabolism</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 706</td>
<td>Vitamin Metabolism</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 708</td>
<td>Energy Metabolism</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 764</td>
<td>Advances in Gastrointestinal Pathophysiology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 775</td>
<td>Mineral Metabolism</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 785</td>
<td>Digestion and Metabolism in Ruminants</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 790</td>
<td>Advanced Feed Formulation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTR 794</td>
<td>Special Topics in Nutrition</td>
<td>1-6</td>
<td></td>
</tr>
</tbody>
</table>

## Faculty

### Full Professors

**Jonathan C. Allen**

*Area of Research*: Food, Bioprocessing and Nutrition Science

**Kenneth E Anderson**

*Area of Research*: Prestige Poultry Science

**Patricia C. Dunn**

*Area of Research*: Agriculture and Human Sciences

**Joan Eisemann**

*Area of Research*: Animal Science

**Vivek Fellner**

*Area of Research*: Animal Science

**Peter R. Ferket**

*Area of Research*: Prestige Poultry Science
Mario Ferruzzi
\textit{Area of Research}: Food, Bioprocessing and Nutrition Science

Jesse Lee Grimes
\textit{Area of Research}: Prestige Poultry Science

Sung Woo Kim
\textit{Area of Research}: Animal Science

Mary Ann Lila
\textit{Area of Research}: Food, Bioprocessing and Nutrition Science

Christian Maltecca
\textit{Area of Research}: Animal Science

Jeannette A. Moore
\textit{Area of Research}: Animal Science

Paul Edward Mozdziak
\textit{Area of Research}: Prestige Poultry Science

Jack Odle
\textit{Area of Research}: Animal Science

Edgar Orlando Oviedo-Rondon
\textit{Area of Research}: Prestige Poultry Science

Shannon Elizabeth Phillips
\textit{Area of Research}: Animal Science

Matt H. Poore
\textit{Area of Research}: Animal Science

Muquarrab Quresh
\textit{Area of Research}: Food, Bioprocessing and Nutrition Science - USDA

Paul David Siciliano
\textit{Area of Research}: Animal Science

Eric VanHeugten
\textit{Area of Research}: Animal Science

\textbf{Associate Professors}

Dara Bloom
\textit{Area of Research}: Agriculture and Human Sciences

April Fogleman
\textit{Area of Research}: Food, Bioprocessing and Nutrition Science

Suzie Goodell
\textit{Area of Research}: Food, Bioprocessing and Nutrition Science

Gabriel Keith Harris
\textit{Area of Research}: Food, Bioprocessing and Nutrition Science

Lindsey Haynes-Maslows
\textit{Area of Research}: Agriculture and Human Sciences

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Slavko Komarnytsky
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Andrew Neilson
\textit{Area of Research}: Food, Bioprocessing and Nutrition Science

\textbf{Assistant Professors}

Kimberly Ange-VanHeugten
\textit{Area of Research}: Animal Science

Natalie Cooke
\textit{Area of Research}: Food, Bioprocessing and Nutrition Science

Basheerah Enahora

Kerim Eroglu
\textit{Area of Research}: Molecular and Structural Biochemistry

Adam Charles Fahrenholz

Massimo Iorizzo
\textit{Area of Research}: Horticultural Science

Michael V. Joseph
\textit{Area of Research}: Animal Science

Arion Kennedy
\textit{Area of Research}: Molecular and Structural Biochemistry

Ramon Malheiros

Arion Kennedy Midgett
\textit{Area of Research}: Molecular and Structural Biochemistry

Carrie Pickworth
\textit{Area of Research}: Animal Science

Virginia Carraway Stage

Ondulla Toomer
\textit{Area of Research}: Food, Bioprocessing and Nutrition Science - USDA

Nicola Singletary
\textit{Area of Research}: Food, Bioprocessing and Nutrition Science

\textbf{Emeritus Faculty}

Brenda P Alston-Mills

Sarah Liberman Ash

Leonard W. Aurand

Leon Carl Boyd

Leonard S Bull

Edward V. Caruolo

George L. Catignani

Warren J Croom Jr

Jimmy Dale Garlich
Winston Murry Hagler
Raymond W. Harvey
William L. Johnson
James R. Jones
James Arthur Knopp
Carolyn Jean Lackey
Jean-Marie Luginbuhl
Jacquelyn W. McClelland
Steven J. Schwartz
Jason C. Shih
Harold E. Swaisgood
Van-Den Truong
Lon Weidner Whitlow

Adjunct professors
Katherine Patterson Maloney
Anneke Moresco
Muquarrab Ahmed Qureshi