# Nutrition (PhD)

## Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BCH 553</td>
<td>Biochemistry of Gene Expression or BCH 571</td>
<td>16</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>3</td>
<td></td>
</tr>
<tr>
<td>Non-NTR 700-level Course</td>
<td>3</td>
<td></td>
<td>The &quot;Non-NTR 700-level Course&quot; will be determined in conjunction with the academic committee</td>
</tr>
</tbody>
</table>

**PhD Core Courses**
- Select at least two courses from "Core Courses" listed below

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<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>
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</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTR 905</td>
<td>Doctoral Dissertation Research</td>
<td>1-9</td>
<td></td>
</tr>
</tbody>
</table>

<p>| Core Courses                                                                 |
| Select at least two courses from the following: |</p>
<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>
</tr>
<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>
</tbody>
</table>

## Total Hours
- Total Hours: 72

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

Jesse Lee Grimes  
**Area of Research:** Prestige Poultry Science

Sung Woo Kim  
**Area of Research:** Animal Science

Mary Ann Lila  
**Area of Research:** Food, Bioprocessing and Nutrition Science

Christian Maltecca  
**Area of Research:** Animal Science

Jeannette A. Moore  
**Area of Research:** Animal Science

Paul Edward Mozdziaak  
**Area of Research:** Prestige Poultry Science

Jack Odle  
**Area of Research:** Animal Science

Edgar Orlando Oviedo-Rondon  
**Area of Research:** Prestige Poultry Science

Shannon Elizabeth Phillips  
**Area of Research:** Animal Science

Matt H. Poore  
**Area of Research:** Animal Science

Muquarrab Quresh  
**Area of Research:** Food, Bioprocessing and Nutrition Science - USDA

Paul David Siciliano  
**Area of Research:** Animal Science

Eric VanHeugten  
**Area of Research:** Animal Science

**Associate Professors**

Dara Bloom  
**Area of Research:** Agriculture and Human Sciences

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

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

Gabriel Keith Harris  
**Area of Research:** Food, Bioprocessing and Nutrition Science

Lindsey Haynes-Maslow  
**Area of Research:** Agriculture and Human Sciences

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

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

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

Giuseppe Valachhi  
**Area of Research:** Animal Science

**Assistant Professors**

Kimberly Ange-VanHeugten  
**Area of Research:** Animal Science

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

Basheerah Enahora  
**Area of Research:** Molecular and Structural Biochemistry

Kerim Ergul  
**Area of Research:** Horticultural Science

Michael V. Joseph  
**Area of Research:** Animal Science

Arion Kennedy  
**Area of Research:** Molecular and Structural Biochemistry

Ramon Malheiros  
**Area of Research:** Molecular and Structural Biochemistry

Arion Kennedy Midgett  
**Area of Research:** Molecular and Structural Biochemistry

Carrie Pickworth  
**Area of Research:** Animal Science

Virginia Carraway Stage  
**Area of Research:** Animal Science

Ondulla Toomer  
**Area of Research:** Food, Bioprocessing and Nutrition Science - USDA

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

**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