# 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>
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<tr>
<td>BCH 553</td>
<td>Biochemistry of Gene Expression or BCH 571 Regulation of Metabolism</td>
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<td>16</td>
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<tr>
<td>NTR 701</td>
<td>Protein and Amino Acid Metabolism</td>
<td></td>
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<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>
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<tr>
<td>NTR 801</td>
<td>Doctoral Seminar</td>
<td></td>
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<tr>
<td>Non-NTR 700-level Course</td>
<td>The &quot;Non-NTR 700-level Course&quot; will be determined in conjunction with the academic committee</td>
<td>3</td>
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<tr>
<td>PhD Core Courses</td>
<td>Select at least two courses from &quot;Core Courses&quot; listed below</td>
<td>5</td>
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<tr>
<td>NTR 895</td>
<td>Doctoral Dissertation Research</td>
<td></td>
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<tr>
<td>Elective Courses</td>
<td>&quot;Elective Courses&quot; that will be applied to reach 72 credit hours will be determined in conjunction with the academic committee</td>
<td>39-47</td>
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<tr>
<td>Total Hours</td>
<td></td>
<td>72</td>
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## Core Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select at least two courses from the following:</td>
<td></td>
<td>5</td>
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<tr>
<td>BCH 453/553</td>
<td>Biochemistry of Gene Expression</td>
<td>3</td>
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<tr>
<td>BCH 571</td>
<td>Regulation of Metabolism</td>
<td>3</td>
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<tr>
<td>NTR 500</td>
<td>Principles of Human Nutrition</td>
<td>3</td>
<td></td>
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<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>
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<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>
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<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>
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<tr>
<td>NTR 554</td>
<td>Lactation, Milk, and Nutrition</td>
<td>3</td>
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<tr>
<td>NTR 555</td>
<td>Exercise Nutrition</td>
<td>3</td>
<td></td>
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<tr>
<td>NTR 557</td>
<td>Nutraceuticals and Functional Foods</td>
<td>3</td>
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<td>NTR 561</td>
<td>Equine Nutrition</td>
<td>3</td>
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<tr>
<td>NTR 565</td>
<td>Advanced Canine and Feline Nutrition</td>
<td>3</td>
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<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>
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<tr>
<td>NTR 764</td>
<td>Advances in Gastrointestinal Pathophysiology</td>
<td>3</td>
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<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>
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<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  
**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 Mozdziak  
**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

Kerim Eroglu  
**Area of Research:** Molecular and Structural Biochemistry

Massimo Iorizzo  
**Area of Research:** Horticultural Science

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

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

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

Carrie Pickworth  
**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
Muquarrab Ahmed Qureshi