Program Learning Objectives
After successfully completing the Master of Science in Nutrition, students will be able to:

1. Apply fundamental principles of nutrition science in research and required coursework
2. Explain, analyze, and interpret fundamental scientific concepts in the specific area of thesis research
3. Apply the scientific method to nutrition research through the design, conduct, and defense of a thesis research project
4. Apply critical thinking skills to the analysis of published research literature and the design/interpretation of a thesis research project
5. Show independent and creative thinking skills in the formulation, design, conduct, and interpretation of nutrition research
6. Demonstrate strong written and oral communication skills
7. Work productively, respectfully, and professionally as part of a research team and in other group settings
8. Exhibit leadership, ethical conduct, and community values

Required Courses
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSN 516</td>
<td>Population Health and Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>FSN 528</td>
<td>Biochemical and Molecular Aspects of Human Macronutrient Metabolism</td>
<td>4</td>
</tr>
<tr>
<td>FSN 529</td>
<td>Metabolic and Molecular Aspects of Vitamins</td>
<td>2</td>
</tr>
<tr>
<td>FSN 530</td>
<td>Metabolic and Molecular Aspects of Minerals</td>
<td>2</td>
</tr>
<tr>
<td>FSN 582</td>
<td>Current Nutrition Research</td>
<td>3</td>
</tr>
<tr>
<td>FSN 599</td>
<td>Thesis</td>
<td>6</td>
</tr>
<tr>
<td>STAT 511</td>
<td>Statistical Methods</td>
<td>4</td>
</tr>
</tbody>
</table>

Approved Electives
See approved electives list below. 21

Total units 45

Approved Electives
Select from one of the three Emphasis Areas in consultation with thesis supervisor (at least 3 units must be at the 500-level):

**Molecular Nutrition Emphasis Area**
Select from the following:
- ASCI 403  Applied Biotechnology in Animal Science
- ASCI 420  Animal Metabolism and Nutrition
- BIO 441   Bioinformatics Applications
- BIO 475   Molecular Biology Laboratory
- BIO 476   Gene Expression Laboratory
- BIO 501   Molecular & Cellular Biology
- CHEM 428  Nutritional Biochemistry
- CHEM 474  Protein Techniques Laboratory
- FSN 500   Individual Study
- FSN 505   Orientation to Graduate Studies
- FSN 581   Graduate Seminar in Food Science and Nutrition
- STAT 513  Applied Experimental Design and Regression Models
- STAT 523  Design and Analysis of Experiments I

**Public Health Nutrition Emphasis Area**
Select from the following:
- FSN 500   Individual Study
- FSN 505   Orientation to Graduate Studies
- FSN 581   Graduate Seminar in Food Science and Nutrition
- KINE 503  Current Health Issues
- KINE 510  Advanced Health Behavior Change Programs
- STAT 417  Survival Analysis Methods
- STAT 419  Applied Multivariate Statistics
- STAT 421  Survey Sampling and Methodology
- STAT 513  Applied Experimental Design and Regression Models
- STAT 524  Applied Regression Analysis
- STAT 530  Statistical Computing with SAS

**Health and Wellness Emphasis Area**
Select from the following:
- COMS 418  Health Communication
- FSN 500   Individual Study
- FSN 505   Orientation to Graduate Studies
- FSN 581   Graduate Seminar in Food Science and Nutrition
- KINE 408  Exercise and Health Gerontology
- KINE 434  Health Promotion Program Planning
- KINE 450  Worksite and University Health Promotion Programs
- KINE 504  Advanced Pathophysiology and Exercise
- KINE 522  Advanced Biomechanics
- KINE 525  Advanced Motor Learning and Control
- KINE 526  Advanced Sport and Exercise Psychology
- KINE 530  Advanced Physiology of Exercise
- PSY 465  Cross-Cultural International Psychology
- STAT 513  Applied Experimental Design and Regression Models