Expected Outcome 1. Demonstrate comprehensive understanding of emphasis area in discipline
Ph.D graduate will demonstrate a comprehensive understanding of an emphasis area (either nutrition or hotel and restaurant management).

Assessment Method 1: Evaluation of preliminary written doctoral examination

Assessment Method Description
Doctoral students will answer questions on complex, discipline-specific issues as part of the written preliminary examinations. Student responses will be evaluated by at least two departmental faculty.

Findings
100% of doctoral students passed the written preliminary examinations (Nutrition: n=2; Hotel and Restaurant Management: n=1). These exams were designed to test a comprehensive understanding of the area of emphasis, either nutrition or hotel and restaurant management. Each member of the doctoral advisory committee (minimum of 4 committee members) administered a written preliminary examination, which was evaluated for pass/fail.

How did you use findings for improvement?
The student advisory committee that administers the written preliminary examination evaluates the comprehensive understanding of student knowledge by evaluating the responses to questions. Currently, evaluation of student's written preliminary examination is done without using a department-approved rubric. The Graduate Program Director will discuss this with Graduate faculty at the next Departmental Strategic meeting, and approved changes will be incorporated.

Additional Comments
None
Assessment Method 2: Evaluation of oral examination

Assessment Method Description
Ph.D graduates will have been orally examined by their dissertation committee at their defense about the general understanding of the published literature within their emphasis area.

Findings
100% of Ph.D graduates (Nutrition: n=2; Hotel and Restaurant Management: n=1) displayed a mastery of fundamental knowledge of their emphasis area (either Nutrition or Hotel and Restaurant Management) and sub-discipline within the emphasis area, at the final oral exam as certified by the students' advisory committees and outside readers.

How did you use findings for improvement?
Currently there are no rubrics to evaluate the quality of knowledge and communication displayed by the students during these final exams. The Graduate Program Director will develop rubrics to assess content knowledge, overall quality of science, depth of understanding, and quality of communication skills. This will be presented at the Department Strategic meeting for consideration and adoption.

Additional Comments
None

Assessment Method 3: Ability to produce significant research

Assessment Method Description
Ph.D graduates will have produced in their dissertation both independent and original research within their emphasis area and sub-discipline, which will be evaluated by the students' dissertation committees and outside readers.

Findings
100% of Ph.D graduates (Summer 2012 - Spring 2013; Nutrition: n=2; Hotel and Restaurant Management: n=1) produced both independent and original research within their dissertation that is suitable for publication, as certified by the students' dissertation committees and outside readers.

How did you use the findings for improvement?
Since the quality of research performed is an important metric in the assessment of significant research, one potential method for validation would be to continue monitoring publication of the research. Since journals have impact factors, these could be assessed. However, this could be carried out only after the research article has been published.
Another method of validation that could be considered would be the generation of a rubric to assess the quality of research. The Graduate Program Director will discuss this in the Department Strategic meeting to potentially consider developing a rubric to assess the quality of research.

**Additional Comments**
None

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**Expected Outcome 2. Critical thinking, problem-solving, and effective writing skills**

Doctoral students will demonstrate critical thinking, problem solving, and effective writing skills.

**Assessment Method 1:** Evaluation of scholarly papers

**Assessment Method Description**

Doctoral students will analyze refereed scientific literature, and/or answer complex discipline specific issues as part of at least 1 graduate class. For the graduate class, evaluation will be completed by the course instructor.

**Findings**

NTRI 8970 - Advanced Topics in Nutrition, Dietetics, and Hospitality Management: 50% of doctoral students earned an 'A' and 50% of students earned a 'B' on a scholarly paper in this course (n=4). Overall, 75% of Ph.D students earned an 'A' and 25% a 'B', in the course.

HRMT 6570 - Global Hospitality: 100% of doctoral students earned an A on a scholarly paper (n=3). In the last assessment (2011-2012) we reported that one student made a 'D' on a scholarly paper in this course. Since then, changes were incorporated by the course instructor, including better defining the components of the report, monitoring progress of the project report periodically, and allocating a certain grade for making fair-to-good progress. This has improved the scores reported here for the current assessment year (2012-2013).

**How did you use findings for improvement?**

NTRI 8970: Advanced Topics in Nutrition, Dietetics, and Hospitality Management: While 75% of students earned an 'A' for the course, only 50% made an 'A' for writing an 'Abstract' of a refereed, scientific literature. This grade reflects critical thinking/problem-solving skills and effective writing skills.
To improve critical thinking/problem-solving skills, faculty that teach this course offer written feedback on the first-draft of the first abstract, showing students how they can improve their critical thinking and writing skills. This includes identifying sections of the peer-reviewed scientific literature that is critical to the understanding of the topic, and focusing on efforts to synthesize information from 2 independent sources. To continue improving students effective writing skills, faculty will direct students to seek help from the Auburn University Miller Writing Center.

Additional Comments
None

Expected Outcome 3. Effective communication of research
PhD graduates will communicate/disseminate their research findings to scientists, professionals, or lay people

Assessment Method 1: Conference presentations and research publications

Assessment Method Description
Ph.D graduates will have conducted research that is communicated to scientists in their sub-discipline by (a) oral or poster presentations at national or international scientific meetings during their degree program, and (b) scientific publications in peer-reviewed journals within three years of graduation.

Findings
Poster or oral presentations at conferences/scientific meetings: 100% of Ph.D graduates presented their research findings at conferences/scientific meetings held at the national level. The breakdown of emphasis-specific areas is shown below:

Nutrition: 2 Ph.D students: Total number of conference presentations: 3 (Experimental Biology meeting, April 21-25, 2012, San Diego, CA; Boshell Annual Diabetes Day)

Hotel and Restaurant Management: 1 Ph.D student: 2 conference presentations (both papers presented at the 18th Annual Graduate Education and Graduate Student Research Conference in Hospitality and Tourism, January 3-5, 2013, Seattle, Washington)
Publication in a peer-reviewed scientific journal: 33% of Ph.D graduates published part of their independent and original research in a peer-reviewed journal or other scholarly outlet journal within their sub-discipline. The breakdown of emphasis-specific areas is shown below:

Nutrition: 2 Ph.D students; number of papers published: 1; number of manuscripts in review: 1
Hotel and Restaurant Management: 1 Ph.D student; number of papers published: 0

**How did you use findings for improvement?**

Ph.D students presented their research findings at local and national-level meetings and scientific conferences, providing opportunities for scientific communication.

While publication statistics for 2012-2013 was only 33% for our graduating PhD students, this number only reflects a 1-year statistic (2012-2013). It is intended that publication status will be followed for a period of 3 years to better reflect this research communication outcome.

**Additional Comments**
None

**Assessment Method 2:** Doctoral students will demonstrate effective oral communication skills

**Assessment Method Description**
As part of NTRI 8850 - Doctoral Research Seminar, doctoral students will search and analyze refereed scientific literature to develop a professional abstract and oral presentation for department faculty and graduate students. Evaluation of the abstract and oral presentation will be completed by attending faculty and graduate students using specific criteria to identify strengths and weaknesses. Grading rubric is shown below:
# NTRI 7850/8850 RESEARCH SEMINAR

**Presenter’s Name:** __________________________  **Date:** ______

**Criteria for Evaluating NDHM Seminar**

<table>
<thead>
<tr>
<th>Comments</th>
<th>Poor</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Excellent</th>
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<tr>
<td><strong>Abstract</strong></td>
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<td>Concise but gives pertinent points</td>
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<td>Accurately summarizes presentation</td>
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<td><strong>Content</strong></td>
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<td>Clearly stated problem &amp; justification at beginning</td>
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<td>Logically developed &amp; arranged ideas</td>
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<td>Presented well chosen studies / information</td>
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<td>Gave a clear summary</td>
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<td>Stated study limitations &amp;/or unsolved problems</td>
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<td><strong>Presentation</strong></td>
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<td>Spoke confidently, audibly without distracting mannerisms(^1)</td>
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<td>Used appropriate vocabulary, pronunciation, grammar</td>
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<td>Showed clear, concise visual aids</td>
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<td>Integrated text smoothly with visuals</td>
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\(^1\) *Identify distracting mannerisms of which the presenter should be aware.*

| **Discussion**                                                          |     |   |   |   |           |
| Initiated discussion if no questions asked                              |     |   |   |   |           |
| Adequate knowledge of subject to answer most questions                  |     |   |   |   |           |
| Maintained leadership (including under difficult situations)           |     |   |   |   |           |

**Please check appropriate box:** Evaluated by: Faculty ______ Graduate student ______

**Abstract Grade:** ______ A  ______ B  ______ C  ______ D  ______ F

**Content Grade:** ______ A  ______ B  ______ C  ______ D  ______ F

**Oral Presentation Grade:** ______ A  ______ B  ______ C  ______ D  ______ F

**PLEASE USE BACK OF PAGE FOR OTHER COMMENTS**
Findings

In this course, students are critically evaluated for three areas: abstract, content, presentation. Out of 4 doctoral students registered for the Fall 2012 NTRI 8850 course, 1 student achieved an A+ grade (100-97 points) and 3 students achieved a B+ grade (89.9-87) for presentation.

How did you use findings for improvement?

Students were evaluated for content & presentation, which included stating problem & justification at beginning, developing and arranging ideas in a logical manner, presenting study limitations, as well as speaking confidently, and audibly without distracting mannerisms, using appropriate vocabulary and grammar, as well as integrating text smoothly with visuals and showing clear, concise visual aids. Based on our findings, students have met oral communication goals set for this course.

One aspect that was not addressed was scientific merit (scientific rigor and understanding of the scientific principles discussed) in the content section of the rubric. This will be discussed at the next Departmental Strategic Committee meeting for consideration for inclusion in future evaluations.

Additional Comments
None

Expected Outcome 4. Preparedness

Doctoral students will be prepared for a professional position or for further education (e.g., postdoc, medical school, etc.,)

Assessment Method 1: Graduating students survey

Assessment Method Description
Graduating Ph.D students will complete a survey that assess the preparedness of doctoral student's for employment at public, private, non-profit, or governmental organizations or pursuit of further education. Additionally, students will be asked about the quality of the Nutrition
doctoral program at Auburn University.

**Findings**

**Preparedness:**
1. Applied for jobs or have plans to apply for jobs or pursue higher education: Out of the 3 Ph.D graduating students polled, two students indicated that they have applied for jobs (66%). Of this one indicated that he/she has already secured a job (50% placement rate). One student indicated that he/she intends to pursue post-doctoral research (33%).
2. Conference presentations/publications: 3/3 students (100%) indicated that they presented peer-reviewed conference papers from their doctoral studies in Nutrition. Two students indicated they have published peer-reviewed journal articles (66%).
3. Other questions on survey:
   - My graduate program was academically challenging: 100% of respondents either agreed or strongly agreed.
   - My graduate program prepared me to teach: 100% of respondents either agreed or strongly agreed
   - My graduate program prepared me to carry out research: 100% of respondents either agreed or strongly agreed
   - My graduate program kept pace with recent trends and developments in the field: 100% of respondents either agreed or strongly agreed.

4. Overall rating of doctoral program in Nutrition at Auburn University: 100% of the polled students (n=3) rated the overall quality of the doctoral program in Nutrition as excellent.

**How did you use findings for improvement?**

(a) 100% of doctoral students in Nutrition presented their research at scientific meetings and 66% published in part their research findings. Currently, a target goal has not been set by the department. It is proposed that the departmental strategic committee be tasked with assigning a target goal for manuscript submissions, publications, and conference presentations.

(b) Another aspect that is currently not surveyed is experiential learning (internship opportunities in industry, collaborating labs, outreach activities). This is proposed to be surveyed in the next academic year.

**Additional Comments**

None