Annual Academic Assessment Report
(MS/FOOD SCIENCE)
(May 19, 2022)

1. Results of analysis of assessment of Student Learning Outcome (SLO)

The Student Learning Outcomes provided below are those related to Technical Knowledge.

SLO 1: Demonstrate advanced knowledge and understanding in their area of emphasis.

1. SLO 1 was assessed in Summer 2021, Fall 2021, and Spring 2022 by each student's graduate committee during the defense for all in FDSC MS students (n=6). A determination by the committee is made individually based on information presented by students and through questions posed to the student. Graduate committees design a line of questioning allowing the determination the depth of knowledge of the student in their specialty area.

   Acceptable and **Ideal Targets**
   - Acceptable Target: No students in the novice category, 80% of students in the Advanced or above category and at least 20% of students in the Expert category.
   - Ideal Target: 100% in the Advanced or Expert category.

2. Key Findings for SLO 1:

	Novice	Intermediate	Advanced	Expert
Technical knowledge in core scientific area (food chemistry, microbiology, etc.)	0	0	6	0

3. Interpretation of key findings in connection to student learning:
   - The acceptable target was not met since <20% of students were in the Expert category for this measurement.
   - The ideal target was met with 100% of students in Advanced or Expert category.
   - The results are similar to the assessment in 2020-2021 with no MS student reaching Expert level in this measurement of technical knowledge in core scientific areas.
   - For the acceptable target to have been reached, at least 2 out of 6 students would need to be at the expert level.
   - Data indicate our MS students are mostly meeting the program expectations. This shows that the MS program in FDSC provides a solid foundation for our students.

4. Description of anticipated actions for improvement of teaching and learning based on key findings:
   - None of the students were considered experts in this learning outcome, and we would like to see 100% of our graduate students in the expert category.

- Because each student is evaluated by their customized graduate committee, there also exists differences across each faculty member with respect to their interpretation of each outcome and competency level. We will continue look at the data to determine if there are any faculty who consistently score higher or lower compared the rest of the committee.

SLO 2: Demonstrate sufficiently broad knowledge across food science and/or nutrition disciplines outside of their core specialty area.

1. SLO 2 was assessed in Summer 2021, Fall 2021, and Spring 2022 by each student's graduate committee during the defense for all in FDSC MS students (n=6). A determination by the committee is made individually based on information presented by students and through questions posed to the student. Graduate committees design a line of questioning allowing the determination the depth of knowledge of the student in their specialty area.

   Acceptable and **Ideal Targets**
   - Acceptable Target: No students in the novice category, 80% of students in the Advanced or above category and at least 20% of students in the Expert category.
   - Ideal Target: 100% in the Advanced or Expert category.

2. Key Findings for SLO 2:

	Novice	Intermediate	Advanced	Expert
Technical knowledge outside of the core research area	0	0	6	0

3. Interpretation of key findings in connection to student learning:
   - The acceptable target was not met since <20% of students were in the Expert category for this measurement.
   - The ideal target was met with 100% of students in Advanced or Expert category.
   - The results are similar to the assessment in 2020-2021 with no MS student reaching Expert level in this measurement of technical knowledge in core scientific areas.
   - For the acceptable target to have been reached, at least 2 out of 6 students would need to be at the expert level.
   - Data indicate our MS students are mostly meeting the program expectations. This shows that the MS program in FDSC provides a solid foundation for our students.

4. Description of anticipated actions for improvement of teaching and learning based on key findings:
   - None of the students were considered experts in this SLO. This indicates that our MS students need to be exposed to technical knowledge outside of their area of

expertise. Because of the limited time given to a MS degree (2 years), it is more difficult to achieve this when compared to a PhD program.

- Although the ideal target was met, none of the students were considered experts in this SLO. We have met as a faculty to discuss curricula changes that will allow our students to be more fluent in knowledge outside of their core research area. However, we have recently lost numerous faculty to retirements and positions at other universities which has stifled our ability to develop new courses and/or revise old courses until we bring on new hires. Last, as indicated, it is challenging to achieve this within the time constraints of a MS program.

2. **Any changes to degree/certificate planned or made on the basis of the assessment and analysis**

   No changes to the degree program have been planned nor were made on the basis of the assessment and analysis. However, as indicated in our interpretation of each SLO, we are indeed actively working on updating graduate course offerings for our MS students.

3. **Any changes to the assessment process made or planned.**

   No changes to the assessment process have been made or planned.