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Submit an Undergraduate Program Assessment Report

College: MULTI
Select Program Name: MULTI: BS: Sustainable Food and Bioenergy Systems
Level: UG
Degree: BS
Type: Major
Year: 2016
Submitted by: Mary Stein
Submitter's Email Address: mary.stein@montana.edu
Date Submitted: 10/11/16

Question 1: What was done on assessment this year?

Based on our assessment plan, we evaluated program learning outcomes 1 through 7 during the 2015-16 academic year. These learning outcomes are:

1. Be capable of Systems Thinking.
2. Have problem solving skills.
3. Have practical skills.
4. Be capable of critical thinking.
5. Be effective communicators.
6. Have developed agency, or the capacity to make choices and act in a society framework.
7. Have a body of knowledge related to SFBS concepts.

Question 2: What assessment data were collected?

1) For the assessment of systems thinking, students' performance within the capstone course on a systems thinking paper assignment were evaluated.
2) For the assessment of problem solving skills, a skill building self-assessment was administered in the practicum course and the team project performance within the capstone course was evaluated.
3) For the assessment of practical skills, the practicum course skill building assessment data was used, as was the mentor review from the internship course.
4) For the assessment of critical thinking, the systems thinking paper within the capstone course was evaluated.
5) For the assessment regarding becoming an effective communicator, the
capstone course pillar and associated assignments related to professionalism and public speaking were evaluated.

6) For the assessment of agency, the practicum course skill building self-assessment, the internship course feedback from mentors and the capstone course team project performance were evaluated.

7) For the assessment of body of knowledge, the systems thinking paper within the capstone course was evaluated.

**Question 3:**

**What was learned from the assessment?**

- **Systems Thinking:** 100% of the students scored at or above our threshold value for this learning outcome.
- **Problem Solving Skills:** 87% of students within the practicum course and 100% of students within the capstone course scored at or above our threshold value for this learning outcome.
- **Practical Skills:** 87% of students within the practicum course and 89% of students within the internship course scored at or above our threshold value for this learning outcome.
- **Critical Thinking:** 100% of our students in the capstone course scored at or above the threshold value for this learning outcome.
- **Effective Communicator:** 100% of our students in the capstone course scored at or above the threshold value for this learning outcome.
- **Agency:** 87% of our students in the practicum course, 89% in the internship and 100% in the capstone course scored at or above the threshold value for this learning outcome.
- **Body of Knowledge:** 100% of our students in the capstone course scored at or above the threshold value for this learning outcome.

**Question 4:**

**How did you respond to the assessment results?**

Relative to the problem solving outcome, we would like to see our students in the practicum course improve so that 100% are at or above the performance threshold. The practicum course setting (the student farm) provides an excellent opportunity for students to problem-solve as many unexpected circumstances arrive related to weather, pests and more. Greater emphasis on student engagement in production related decision-making will be built into this practicum course, providing students with opportunity to both succeed and fail, thus improving their problem-solving skills and confidence in problem-solving.

Relative to the practical skills and agency outcomes, we would like to see our students, within both the practicum and internship courses improve so that 100% are at the performance threshold of receiving positive evaluations from their internship mentors. In order to reach this 100% at performance threshold goal, we will expand the internship application materials to put a greater emphasis on practical skill requirements as determined by the internship mentor and will meet with students during the semester prior to their internship to ensure they are well-prepared in terms of practical skills and understanding of the professionalism expectations of the internship. Additionally, we will increase students' opportunities to practice professionalism, decision-making, agency and skill building within the practicum course at the campus farm, thus strengthening both their practical skills and confidence in their ability to
perform these skills.

Relative to the systems thinking, critical thinking, communicators and body of knowledge outcomes, our assessment indicated that no changes are needed regarding this learning outcome.