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| **Assurance of Student Learning Report****2022-2023** |
| *Ogden College of Science and Engineering* | *Department of Agriculture and Food Science* |
| *M.S. in Agriculture – Ref # 052* |
| *Dr. Fred DeGraves – Department Chair; Dr. Dominique Gumirakiza, Graduate Coordinator* |
| ***Is this an online program***? [ ]  Yes [x]  No | Please make sure the Program Learning Outcomes listed match those in CourseLeaf . Indicate verification here [x]  Yes, they match! (If they don’t match, explain on this page under **Assessment Cycle)** |

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| ***Use this page to list learning outcomes, measurements, and summarize results for your program. Detailed information must be completed in the subsequent pages. Add more Outcomes as needed.*** |
| **Program Student Learning Outcome 1: Graduate students will communicate effectively in written formats.**  |
| **Instrument 1** | **Direct: Score on written abstracts of selected research topics (AGRI 598 - Graduate Seminar).** |
| **Based on your results, check whether the program met the goal Student Learning Outcome 1.** | **[x]  Met** | **[ ]  Not Met** |
| **Program Student Learning Outcome 2: Graduate students will communicate effectively in oral formats.**  |
| **Instrument 1** | **Direct: Score on oral presentations of selected research topics (AGRI 598 - Graduate Seminar).** |
| **Based on your results, check whether the program met the goal Student Learning Outcome 2.** | **[x]  Met** | **[ ]  Not Met** |
| **Program Student Learning Outcome 3: Graduate students will use appropriate agricultural experimental designs, perform proper data analysis procedures, and make valid interpretations on research questions.**  |
| **Instrument 1** | **Direct: Score on final comprehensive course assessment (AGRI 590 - Experimental Design).** |
| **Instrument 2** | **Direct: Score on experimental design platforms (AGRI 590 - Experimental Design).** |
| **Based on your results, check whether the program met the goal Student Learning Outcome 3.** | **[x]  Met** | **[ ]  Not Met** |
| **Assessment Cycle Plan:**  |
| For example, list any outcomes not assessed this cycle and indicate the next year in which they will be assessed. If you plan to change any program learning outcomes, please explain that and when it will occur as well. If everything will be the same next cycle, just indicate that nothing will change in terms of the timeline. |

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| **Program Student Learning Outcome 1** |
| **Program Student Learning Outcome**  | **Graduate students will communicate effectively in written formats.**  |
| **Measurement Instrument 1**  | Direct: Written presentations of selected research topics. Candidates were evaluated via the required AGRI 598 - Graduate Seminar course. Students used various sources to research topics and prepared written presentations summarizing their results. Topics included individual thesis research projects.  |
| **Criteria for Student Success** | Graduate students should score 75% or higher on written presentation (abstract/thesis project).  |
| **Program Success Target for this Measurement** | 80% of students will score at least 75% on the rubric. | **Percent of Program Achieving Target** | **89% (17/19)** |
| **Methods**  | Student abstracts were assessed by rubric based upon previously discussed abstract formatting which includes the objectives, materials and methods, results, and implications of the research. |
| **Based on your results, highlight whether the program met the goal Student Learning Outcome 1.** | **[x]  Met** | **[ ]  Not Met** |
| **Results, Conclusion, and Plans for Next Assessment Cycle (Describe what worked, what didn’t, and plan going forward)** |
| Graduate students performed well – we will continue to utilize this learning objective. |

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| **Program Student Learning Outcome 2** |
| **Program Student Learning Outcome**  | **Graduate students will communicate effectively in oral formats.** |
| **Measurement Instrument 1** | Direct: Oral presentations of selected research topics. Candidates are evaluated via the required AGRI 598 (Graduate Seminar) course. Students utilized various sources to research the topic and prepared a 12 to 15 minute oral presentation summarizing their results. Topics included individual thesis research projects.  |
| **Criteria for Student Success** | Gradaute students should score 75% or higher on oral presentations. |
| **Program Success Target for this Measurement** | 80% of students will score 75% or higher on the rubric. | **Percent of Program Achieving Target** | **95% (18/19)** |
| **Methods**  | Oral presentations were evaluated by rubric based upon four presentation criteria: Mechanics and Delivery, Content Knowledge, Quality of Visuals, and Organization and Clarity that were assessed by departmental faculty via a rubric. |
| **Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 2.** | **[x]  Met** | **[ ]  Not Met** |
| **Results, Conclusion, and Plans for Next Assessment Cycle (Describe what worked, what didn’t, and plan going forward)** |
|  Graduate studens performed well based upon the assessment; therefore, we will continue to evaluate this objective. |

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| **Program Student Learning Outcome 3** |
| **Program Student Learning Outcome**  | **Graduate students should be able to use appropriate agricultural experimental designs, perform proper data analysis procedures and make valid interpretations on research questions.** |
| **Measurement Instrument 1** | Direct: Score in final comprehensive course assessment for AGRI 590 - Agricultural Experimental Design. |
| **Criteria for Student Success** | Students should score 75% or higher on the final comprehensive course assessment. |
| **Program Success Target for this Measurement** | 70% of students will score 75% of higher | **Percent of Program Achieving Target** | **86% (6/7)** |
| **Methods**  | Graduate students were comprehensively assessed for their ability to answer given research questions by using their skills of selecting proper experimental designs, following appropriate data analysis procedures, and making valid interpretations. |
| **Measurement Instrument 2** | Direct: Conceptual application assessments of student design platforms instrumented in AGRI 590 - Agricultural Experimental Design. |
| **Criteria for Student Success** | Students should score 75% or higher on the student design platform assignment. |
| **Program Success Target for this Measurement** | 80% of students will score at least 75% on the abstract assignment. | **Percent of Program Achieving Target** | 100% (7/7) |
| **Methods** | Student design platforms were assessed based upon previously discussed designs, data analysis procedures and interpretations. |
| **Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 3.** | **[x]  Met** | **[ ]  Not Met** |
| **Results, Conclusion, and Plans for Next Assessment Cycle (Describe what worked, what didn’t, and plan going forward)** |
| Graduate students performed well with at least 86% scoring at least 75% on their final comprehensive assessments and experimental design platforms. We will continue to utilize this assessment method.  |

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| **Program name:** | M.S. in Agriculture & Food Science (052) |   |  |  |
| **Department:** | Agriculture & Food Science |   |  |  |
| **College:** | Ogden College of Science & Engineering |   |  |  |
| **Contact person:** | Dominique Gumirakiza |   |  |  |
| **Email:** | dominique.gumirakiza@wku.edu; |   |  |  |
| **KEY:** |  |  |  |  |  |
| **I = Introduced** |  |  |  |  |  |
| **R = Reinforced/Developed** |  |  |  |  |
| **M = Mastered** |  |  |  |  |  |
| **A = Assessed** |  |  |  |  |  |
|  |  |  | **Learning Outcomes** |  |  |
|  |  |  | **LO1:** | **LO2:** | **LO3:** |
| **Course Subject** | **Number** | **Course Title** |   |   |   |
| **Core (9 hrs)** |  |  |   |   |   |
| AGRI | 491G | Data Analysis & Interpretation |   |   | R |
| AGRI | 590 | Experimental Design |   |   | M/A |
| AGRI  | 598 | Graduate Seminar | M/A | M/A |   |
| **Selectives (12 hrs)** |   |   |   |   |   |
| AGRI | 528 | Population Genetics |   |   | R |
| AGEC | 561 | Agricultural Production Economics  | R |   |   |
| AGRI | 599 | Thesis Research/Writing | R |   |   |
| AGRI | 597 | Independent Special Problems /Agriculture | R | R | R |
| AGEC  | 671 | Advanced Agribusiness |   |   | M |
| ANSC | 675 | Advanced Topics in Animal Science | M | M |   |
| AGRI | 675 | Advanced Topics/Agriculture | M | M |   |
| AGEC | 675 | Advanced Topics/Agricultural Economics  | M | M |   |
| AGED | 675 | Advanced Topics/Agriculture Education | M | M |   |
|  |   | Capstone/Thesis Defense | M | M | M |
| **Electives (9 hrs)** |   |   |   |   |   |