

APPENDIX

**Department of Agriculture
Graduate Program Assessment Plan**

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August 2012**

The assessment plan for the M.S. in Agriculture is based upon four goals:

- Educate individuals so that they can contribute effectively to their profession.
- Educate individuals so that they can effectively communicate at an advanced level.
- Educate individuals so that they possess the knowledge and skills to make scholarly contributions to society.
- Cultivate the intellectual curiosity and growth of students and promote life-long learning.

The stated goals relate directly or indirectly to the mission of the College of Applied Science and Technology:

The College of Applied Science and Technology cultivates the intellectual and personal growth of individuals through premier teaching, research, and outreach programs. We emphasize innovative relationships between theory and practice in order to graduate technologically skilled life-long learners who can contribute effectively to their profession and society.

Outcomes and assessment procedures associated with each goal are described next.

Goal: Educate individuals so that they can contribute effectively to their profession.

Outcome 1: Graduates obtain employment in their chosen field.

Outcome 2: Graduates continue their education (in a Ph. D. program).

Assessment: At the time a student defends their thesis or completes a comprehensive exam, they will be requested to become a member of the Illinois State University Department of Agriculture Facebook page (<https://www.facebook.com/groups/20768380305/>). That will allow the Graduate Program Director and other faculty to maintain contact with graduates and monitor their graduate school and professional activities. Graduates will be surveyed every three years to determine their employment status. Employers or graduate school advisors of graduates will be surveyed on the same schedule.

Goal: Educate individuals so that they can effectively communicate at an advanced level.

Outcome 1: Students will successfully complete AGR 403 Graduate Seminar in Agriculture.

Assessment: Graduate Seminar Evaluation Rubric. (Source: University of North Dakota, Department of Chemical Engineering <http://engineering.und.edu/chemical/files/docs/grad-seminar-rubric.pdf>)

Graduate Seminar Evaluation Rubric *Presenter* _____ *Date* _____

Rating	Excellent	Very Good	Fair	Poor	
Score	4	3	2	1	SCORE
Speaking skills	All of audience can hear presentation; maintains eye contact with audience; clear, expressive voice; poised, good posture, no distracting mannerisms	Most of audience can hear presentation; eye contact most of the time; clear voice, but not as expressive; a little nervous, not as polished	Difficult to hear; occasional eye contact; some mumbling, little or no expression; nervous, some distracting mannerisms; reads much of slides	Audience can't hear presentation; no eye contact; hard to understand, monotone; speaker uncomfortable and uninterested; reads slides word for word	
Audience interaction	Held audience's attention throughout, points made in creative way; listened carefully to audience questions and responded directly to question asked	Held audience attention most of the time; polite in answering questions, but not as directly	Difficulty holding audience attention, facts presented with little or no imagination; lengthy answers, sometimes without answering the question asked	Completely lost audience attention; started responding before questions finished; answers often unrelated to the question asked	
Visuals	Visually pleasing and easy to read; good use of white space, color, backgrounds; images and graphics support and enhance content	Adequate layout, but with some fonts, colors, backgrounds difficult to read	Difficult to read, cluttered appearance; images improperly sized; some distracting graphics or animations	Confusing layout, text extremely difficult to read; many graphics, sounds, animations distract from the presentation	
Organization	Presented in logical sequence; introduction and background give proper context; key points and conclusions are clear and well developed	Most information presented in logical sequence; clear introduction; adequate background; some irrelevant information	Some problems with sequencing, lacks clear transitions; incomplete or overly detailed introduction; emphasis given to less important information	Little or no organization, difficult to follow; missing or ineffective introduction; confusing or no background; key points unclear	
Subject knowledge	Demonstrates in depth knowledge; answers questions with explanations and elaboration	Adequate knowledge of most topics; answers questions, but fails to elaborate	Superficial knowledge of topic; only able to answer basic questions	Does not have grasp of information; cannot answer questions about subject	
Literature review	Thoroughly, but concisely, describes previous and related work; clearly explains how current work fits into broader field	Describes previous and related work; makes connection to current work	Mentions other work done in field; connections to current work not as clear	Unaware of other work done in the field; little or no context for current work	
Hypothesis & research plan	Novel and challenging research question; well thought out research plan; original and significant	Focused and challenging research question; minor flaws in research plan; makes modest contribution to field	Poorly focused research question; incomplete research plan; not very original or significant	research question requires little creative thought; incoherent research plan; little or no contribution to the field	
Methods	Uses or develops best-suited tools, methods, approaches; describes methods in detail; understands pros/cons of methods	Uses a variety of appropriate techniques; describes methods; good understanding of methods	Uses limited number of standard techniques; incomplete description of methods; basic understanding of methods	Poor selection of techniques; no description; does not understand methods used	
Analysis	Correctly interpreted results; Accounted for error and uncertainty; Explores in depth interesting issues and connections	Correct, but incomplete data analysis; partially accounted for error; explores some interesting issues and connections	Some errors in interpreting data; faulty error analysis; does not explore all possibilities and misses connections	Major errors in data interpretation; no error analysis; little or no exploration of results	
Conclusions	Insightful conclusions supported by evidence; discusses implications and application; recommends future directions for research	Conclusions supported by evidence; some discussion of implications and future directions	Conclusions could be supported by stronger evidence; minimal discussion of implications and future work	Conclusions not supported by evidence; no discussion of implications and future work	

Outcome 2: Students successfully complete and defend a thesis.

Assessment: Thesis Defense Rubric. (Source: Purdue University, Department of Entomology)

Thesis Defense Rubric

Student name _____

Completed by _____ Date _____

Attribute	Exceeds Expectations	Meets Expectations	Does Not Meet Expectations
Overall quality of presentation	<input type="checkbox"/> Well organized <input type="checkbox"/> Professional presentation <input type="checkbox"/> Excellent communication skills <input type="checkbox"/> Slides and handouts outstanding	<input type="checkbox"/> Clearly organized <input type="checkbox"/> Clear presentation <input type="checkbox"/> Good communication skills <input type="checkbox"/> Slides and handouts clear	<input type="checkbox"/> Poorly organized <input type="checkbox"/> Poor presentation <input type="checkbox"/> Poor communication skills <input type="checkbox"/> Slides and handouts difficult to read
Overall breadth of knowledge	<input type="checkbox"/> Presentation superior <input type="checkbox"/> Presentation reveals exceptional depth of subject knowledge <input type="checkbox"/> Presentation reveals well developed critical thinking skills <input type="checkbox"/> Presentation reveals the ability to interconnect and extend knowledge from multiple disciplines	<input type="checkbox"/> Presentation acceptable <input type="checkbox"/> Presentation reveals some depth of knowledge in subject matter <input type="checkbox"/> Presentation reveals above average critical thinking skills <input type="checkbox"/> Presentation reveals the ability to draw from knowledge in several disciplines	<input type="checkbox"/> Presentation unacceptable <input type="checkbox"/> Presentation reveals critical weaknesses in depth of knowledge in subject matter <input type="checkbox"/> Presentation does not reflect well developed critical thinking skills <input type="checkbox"/> Presentation is narrow in scope
Quality of response to questions	<input type="checkbox"/> Responses are eloquent <input type="checkbox"/> Arguments are skillfully presented <input type="checkbox"/> Respondent exhibits superior knowledge in subject area <input type="checkbox"/> Responses exceed level expected of a Masters student	<input type="checkbox"/> Responses are complete <input type="checkbox"/> Arguments are well organized <input type="checkbox"/> Respondent exhibits adequate knowledge in subject area <input type="checkbox"/> Responses meet level expected of a Masters student	<input type="checkbox"/> Responses are incomplete <input type="checkbox"/> Arguments are poorly presented <input type="checkbox"/> Respondent exhibits lack of knowledge in subject area <input type="checkbox"/> Responses do not meet level expected of a Masters student
Overall assessment	<input type="checkbox"/> Exceeds expectations	<input type="checkbox"/> Meets expectations	<input type="checkbox"/> Does not meet expectations
Comments:			

Outcome 3: Students prepare an oral presentation or poster for a professional meeting.

Assessment: Track the number of such activities by academic year.

Goal: Educate individuals so that they possess the knowledge and skills to make scholarly contributions to society.

Outcome 1: Students successfully complete AGR 445 Statistics in Applied Science and Technology.

Outcome 2: Students successfully complete AGR 497 Research Methods in Agribusiness.

Assessment: Administer standardized content exams (AGR 445 & 497) in AGR 403.

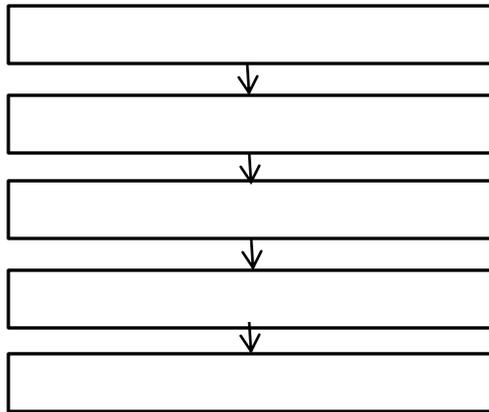
Sample question that pertains to **AGR 445**:

If an investigator is testing the significance of differences between two independent samples, and the data are ordinal, which of the following tests is most appropriate?

- a. Repeated measures ANOVA
- b. Mann-Whitney U test
- c. Wilcoxon matched-pairs test
- d. Independent samples t-test

Sample question that pertains to **AGR 497**:

Arrange the following items so that they reflect the appropriate order of research activities: analysis, data collection, drawing conclusions, problem identification, reviewing information.



Goal: Cultivate the intellectual curiosity and growth of students and promote life-long learning.

Action 1: Instructors in 400-level Agriculture courses provide information via multiple types of media and encourage independent exploration.

Action 2: Instructors in 400-level Agriculture courses utilize class discussions and student presentations as learning tools. Instructors will periodically ask students to record how they incorporated lifelong learning skills into the aforementioned activities.

Action 3: Instructors in 400-level Agriculture courses promote one-to-one and small group discussions outside the classroom.

Outcome: Students develop dispositions and skills that reflect life-long learning.

Assessment: Foundation and Skills for Lifelong Learning Rubric. (Source: Association of American Colleges and Universities

http://www.aacu.org/value/rubrics/index_p.cfm?CFID=40836109&CFTOKEN=47673466)

	Capstone 4	Milestones		Benchmark 1
		3	2	
Curiosity	Explores a topic in depth, yielding a rich awareness and/or little-known information indicating intense interest in the subject	Explores a topic in depth, yielding insight and/or information indicating interest in the subject	Explores a topic with some evidence of depth, providing occasional insight and/or information indicating mild interest in the subject.	Explores a topic at a surface level, providing little insight and/or information beyond the very basic facts indicating low interest in the subject
Initiative	Completes required work, generates and pursues opportunities to expand knowledge, skills, and abilities	Completes required work, identifies and pursues opportunities to expand knowledge, skills, and abilities	Completes required work and identifies opportunities to expand knowledge, skills, and abilities	Completes required work
Independence	Educational interests and pursuits exist and flourish outside classroom requirements; knowledge and/or experiences are pursued independently	Beyond classroom requirements, pursues substantial, additional knowledge and/or actively pursues independent educational experiences	Beyond classroom requirements, pursues additional knowledge and/or shows interest in pursuing independent educational experiences	Begins to look beyond classroom requirements, showing interest in pursuing knowledge independently
Transfer	Makes explicit references to previous learning and applies in an innovative (new and creative) way that knowledge and those skills to demonstrate comprehension and performance in novel situations	Makes references to previous learning and shows evidence of applying that knowledge and those skills to demonstrate comprehension and performance in novel situations	Makes references to previous learning and attempts to apply that knowledge and those skills to demonstrate comprehension and performance in novel situations	Makes vague references to previous learning but does not apply knowledge and skills to demonstrate comprehension and performance in novel situations
Reflection	Reviews prior learning (past experiences inside and outside of the classroom) in depth to reveal significantly changed perspectives about educational and life experiences, which provide foundation for expanded knowledge, growth, and maturity over time	Reviews prior learning (past experiences inside and outside of the classroom) in depth, revealing fully clarified meanings or indicating broader perspectives about educational or life events	Reviews prior learning (past experiences inside and outside of the classroom) with some depth, revealing slightly clarified meanings or indicating a somewhat broader perspectives about educational or life events	Reviews prior learning (past experiences inside and outside of the classroom) at a surface level, without revealing clarified meaning or indicating a broader perspective about educational or life events

Implementing and Using Results

All information collected via the assessment process will be compiled and retained by the Department Graduate Program Director. Once per academic year, the Graduate Program Director will present the findings to and discuss implications with faculty at a scheduled department faculty meeting. In addition, the Department Curriculum Committee will meet at least one time per calendar year to review the data and make recommendations for program improvement to the department faculty.