

Agribusiness Learning Outcomes Project: Background

Annual WAEA Meetings

June 2013

Monterey, CA

Origins

- Evaluation of Undergraduate Teaching Programs
 - Attempt to identify strengths of ABM programs
- Greg Perry and Penny Diebel developed a 25 question assessment that sampled from a variety of subjects
- In 2008 administered assessment at four schools
 - Oregon State, Eastern Oregon, Colorado State, Kansas State

Origins

- What was learned:
 - Assessment results did differ by university
 - Choice of vocabulary in questions was important
 - Use of multiple choice tests to evaluate learning is controversial
 - **To do this right, we needed to identify common learning outcomes by subject area and examine weightings between areas**

The Agribusiness Learning Outcomes Project

- Develop a common set of learning outcomes to create recommendations and comparatives for agribusiness management program leaders and faculty
- Initiated by:
 - Penny Diebel, Oregon State
 - Scott Downey, Purdue
 - Michael Gunderson, Florida (now Purdue)
 - Greg Perry, Oregon State (now Colorado State)

The Agribusiness Learning Outcomes Project

Endeavoring Participants:

- Bill Adamson, SDSU
- Penny Diebel, OSU
- Scott Downey, Purdue
- Ted Feitshans, NCU
- Marshall Frasier, CSU
- Michael Gunderson, Purdue
- Lindsey Higgins, CalPoly
- Dayton Maxwell, SUNY-Cobles.
- Patrick O'Rourke, ISU
- Hikaru Peterson, KSU
- Greg Perry, CSU
- Michael Wetzstein, UGA
- Norbert Wilson, Auburn

The Agribusiness Learning Outcomes Project

- AAEEA foundation and industry grants
- Piloted at Colorado State, December 2011 (part of comprehensive program review)
- National workshop in conjunction with Western Education and Research on Agribusiness (WERA-72) at Purdue University, June 2012

The Agribusiness

Learning Outcomes: CSU Workshop

- Part of Curriculum Review process
- Pilot process
 - Faculty - Industry - Alumni
 - Background Presentations
 - Present Knowledge Areas
 - Discussion/Prioritization
- Adjust process – Discussion intensive, broad sharing, strong opinions
 - Addition of time allocation survey

The Agribusiness Learning Outcomes: Purdue Workshop

Industry Participants

Jamie	Butts	DuPont Pioneer	Communications Manager
Phil	Coon	John Deere	Manager, Total Quality and Planning MSQS
Brian	Field	Harvest Capital Company	President
Joe	MacDonald	Elanco Human Resources	Director, Global Recruiting
Paul	Marsh	Prudential Agricultural Investments	Ag Mortgage Portfolio Manager
Bonnie	Norris	Harvest Land Co-op Inc.	Human Resources Manager
Drew	Ratterman	Dow AgroSciences	Market Sell Workforce Leader

Academic Participants

Bill	Adamson	South Dakota State University	Associate Professor
Frank	Dooley	Purdue University	Professor
Aaron	Johnson	University of Idaho	Associate Professor
James	Pritchett	Colorado State University	Associate Professor
Brent	Ross	Michigan State University	Assistant Professor
Al	Wysocki	University of Florida	Professor
Anthony	Yeboah	North Carolina A&T State University	Dept. Chairperson

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- Critical vocabulary
 - Learning Outcome (LO): expresses desired characteristics of students as a result of a student's study or other guided efforts, preference for action / measurable characteristics
 - Knowledge Area : specific topic area of study, such as finance
 - Knowledge Area Outcomes: actions a student should be able to perform successfully as a result of a course(s), measurable actions
 - Program: a set of courses, such as an agribusiness major
 - Program Outcomes: actions a student should be able to perform successfully as a result of completing a program

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- Purpose was to develop a report to summarize:
 - number of classroom hours devoted to each subject for various agribusiness programs
 - common themes or specific subject matter covered during this classroom time
 - learning outcomes that reflect common course content in ABM classes

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- Breakout sessions with faculty and industry representatives
 - Knowledge/Topic Groups
 - present background homework
 - create Learning Outcomes for each Knowledge Area
 - “Trade Show” Presentations
 - Discussion of Program Learning Outcomes
 - Prioritization
 - Expanded Discussion on Experiential Learning

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Knowledge Outcomes

“Successful graduates in agribusiness will be able to ...”

- Business Knowledge Areas
 - Finance (7 outcomes)
 - Marketing (5)
 - Management (6)
 - Strategy (4)
 - Human Resources (6)
- Economics Knowledge Areas
 - Microeconomics (5)
 - Macroeconomics (6)
- Policy Knowledge Areas
 - Law (6)
 - Agricultural Policy (5)

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Knowledge Outcomes

“Successful graduates in agribusiness will be able to ...”

- Foundation Skill Knowledge Areas
 - Writing/Communication (5 outcomes)
 - Math and Quantitative (2)
 - Computer/Media Communication (4)
 - Experiential Education (4)
 - International (2)

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Program Outcomes

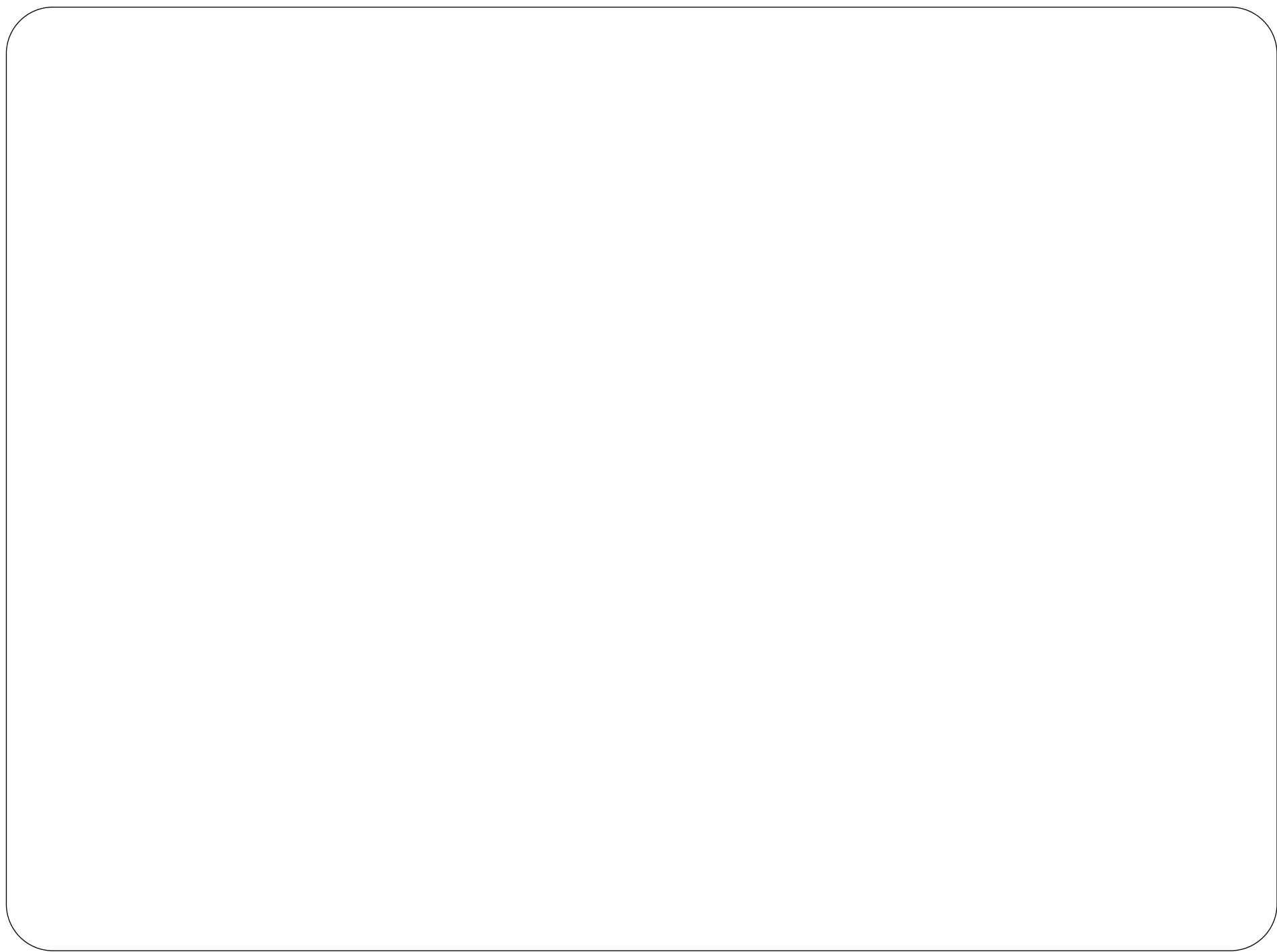
“Successful graduates in agribusiness will display ...”

- Professionalism
- Technical Competence
- Problem-solving Skills
- Communication Skills
- Leadership

Time Allocation %	WERA - Faculty	WERA - Industry	AAEA '12
Microeconomic Theory	7.9	-2.4	2.5
Macroeconomic Theory	4.9	1.3	0.8
Law	4.3	-0.1	-0.9
Agricultural Policy	5.3	-2.3	-0.3
Finance	7.7	1.5	0.6
Business/Commodity Marketing	9.0	-0.7	1.3
Strategic Analysis	7.4	0.9	-0.9
Management	9.6	-0.8	-1.6
Human Resource Mgmt			4.5
Computer Skills	5.1	2.7	0.7
Quantitative Skills	8.9	-1.1	0.8
Experiential Learning	7.3	-0.5	-0.4
Self-Development	4.5	0.2	3.1
Writing/Communication	9.4	-1.1	-5.6
Professionalism	5.3	0.4	-1.3

Agribusiness Learning Outcomes Project

Where Do We Go Next ?



Business Knowledge Areas: Finance

- Explain and perform financial and managerial accounting procedures.
- Calculate and understand financial statements and tax returns, then communicate that information to others.
- Apply financial analysis tools, including ratios and trend analysis.
- Understand the structure, costs and access to capital, including use of debt, bond financing and external investments.
- Understand the tradeoff between risk and return.
- Analyze and evaluate investments and expected returns, including pro forma, NPV, and IRR.
- Calculate and interpret partial, whole business and enterprise budgets.

Business Knowledge Areas: Marketing

- Understand, interpret, utilize and evaluate market research.
- Anticipate the impact of interactions between macro market forces, with emphasis on commodities.
- Utilize basic marketing principles (5 P's, segment, brand, and so forth) to understand company and market interfaces (branding).
- Understand how firms co-create value for agribusiness customers.
- Select appropriate marketing tools and use them to make decisions.
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Business Knowledge Areas: Management

- Learn the fundamentals of commodity markets, trading and risk.
- Understand how firms manage inventory along the supply chains.
- Appreciate the uniqueness of production agriculture and its role in both society and the world.
- Analyze, plan, implement, and control a management challenge.
- Manage change in the business, industry and economy.
- Organize and lead projects, as well as understanding when and how to use experts.

Business Knowledge Areas: Strategy

- Assess the current position and environment of a business/ entity, and Identify and evaluate opportunities and consequences of a challenging problem.
- Develop a vision, mission, and direction, accounting for uncertainty.
- Frame strategic questions for a business, gather and evaluate information, and use sound analysis to make and support decisions.
- Allocate and structure resources to accomplish goals, including capital, people and change management.
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Business Knowledge Areas: Human Resources

- Demonstrate the ability to interview and be interviewed. Also be able to recognize, recruit and develop talent.
- Understand unique aspects of agriculture labor and regulations.
- Develop an ability to manage employees with work-related problems.
- Understand the roles of benefits, compensation and recognition in retention and productivity of employees.
- Anticipate and plan for workforce changes (succession, development, growth and attrition).
- Understand and be able to use basic negotiation skills.

Economics Knowledge Areas:

Microeconomics

- Explain the derivation of supply and demand functions based on consumer and producer decision-making.
- Explain the importance of market prices as signals for allocating scarce resources.
- Effectively compare and contrast a centralized and decentralized decision for maximizing social welfare.
- Demonstrate the connections between the economic concepts and business decisions, emphasizing marginal analysis, comparative advantage, and opportunity cost.
- Identify the tradeoffs between economic efficiency and equity.

Economics Knowledge Areas:

Macroeconomics

- List and explain macroeconomic indicators commonly used in the business press and business forecasting.
- Illustrate the linkages between fiscal and monetary policy and international trade.
- Explain the stages of the business cycle and relationships to:
 - aggregate demand aggregate supply changes to maintain stable prices and employment.
 - a cyclical budget deficit and a structural budget deficit.
- Identify the government's role in sustainable economic growth.
- Describe the relationship between national savings and international capital flows and balance of payments.
- Describe the impact on agriculture to domestic and international macroeconomic shocks.

Policy Knowledge Areas: Law

- List the components of the legal system and instruments, in terms of how they work in agricultural business.
- List and explain the key areas of law governing agriculture.
- Identify legal issues sufficient to communicate with legal counsel.
- Explain how farm business organization structured, created, and transferred.
- Demonstrate best practices of preventative law within a regulated environment
- Identify best practices of corporate ethics.

Policy Knowledge Areas: Agricultural Policy

- Employ economic theory to analyze current agricultural and food issues and policy (providing a directed or self-selected list of topics depending on interest and expertise of faculty and students).
 - Such as: Immigration, Farm Bill , Biofuels, Sustainability ...
- Illustrate how the economic implications of policy are translated into regulations and legislation
- Illustrate the economic consequences of policy alternatives.
- Identify the linkages among agricultural production, natural resource, and environmental issues.
- Identify the relationship between policy decisions and food safety.
- Identify and analyze the role of multiple stakeholders in the policy process.

Foundation Knowledge Areas: Writing/Communication

- Identify, critically evaluate, and cite sources.
- Interpret and synthesize information for practical usage.
- Demonstrate proficiency in business professional writing for appropriate audiences.
- Demonstrate proficiency in business professional presentations for appropriate audiences.
- Demonstrate proficiency in business professional interpersonal communication, including interview, one-to-one, team and small group situations.

Foundation Knowledge Areas: Math and Quantitative

- Demonstrate command of: algebra, statistics, graphical analysis, calculus.
- Practical application of algebra, statistics, calculus to agribusiness decisions and utilize modeling for problem solving.

Foundation Knowledge Areas: Computer/Media Communication

- Develop an “intermediate” level of MS Word, PowerPoint, and Excel skill.
- Apply computer skills to agribusiness concepts and critical applications.
- Demonstrate capacity to evaluate and implement existing and new technologies.

Foundation Knowledge Areas: Experiential Education

(Highly valued and encouraged but not required)

- Internships
 - Strengthen interpersonal communication skills.
 - Practice critical thinking.
 - Develop workplace professionalism.
 - Learn about workplace/business ethics.

- International
 - Cultivate cultural awareness.
 - Cultivate respectful interpersonal communication.

Foundation Knowledge Areas: Professionalism

- Develop professionalism in regard to computer use and skills including:
 - Appropriately use of phone, texting, email and social media.
- Recognize and appropriately handling of sensitive material.
- Demonstrate proficiency in business professional writing, for appropriate audiences. presentations for appropriate audiences, interpersonal communication, including interview, one-to-one, team and small group situations.
- Develop a knowledge of workplace professionalism.
- Learn about workplace/business ethics.