Department of Agricultural and Resource Economics
Strategic Planning Document
November, 2014

The Department of Agricultural and Resource Economics (hereinafter, "the department") met on August 6&7, 2014 to develop a strategic plan. Three committees (Curriculum Review, Undergraduate Program, and Outreach) were established earlier in the year. Each committee presented ideas and concepts for both short and long term strategic plans, followed by faculty input and discussion. Each committee then summarized the recommendations and discussions and forwarded those to the department head. The department head then developed a departmental strategic plan which was in turn reviewed by the faculty. This document is the culmination of that process. Also included is an appendix which contains a prototype concentration showcase.

General Overview

The department is reeling from losing 1.1 teaching FTE and 0.9 research FTE in the fall of 2013. The loss of teaching FTE comes to 30% of our funded teaching FTE and has significantly reduced our teaching resources. The initial loss due to the death and dismissal of two tenured faculty members was further complicated by the retirement of another tenured faculty member (90R/10T) in February, 2014. While the department acknowledges that faculty lines reside at the dean's level, the inability to fill any of the open positons has placed an extreme hardship on the departmental faculty.

This lack of funding and support has impacted the current strategic planning discussion. In spite of the decline in faculty numbers, the department has developed an ambitious and detailed plan to guarantee its continued success. There are some measured risks in the plans as noted in the following discussions. However, for this department to continue to excel in research, teaching, and Extension programming, it is imperative that changes be made.

We respectfully ask our administration to carefully read and ponder our plans.

Curriculum Review

Findings:

1) The number of undergraduate students has fluctuated between 56 and 91 over the past ten years. It would be a reasonable goal to increase the number of undergraduate students to 120.
2) Departmental Teaching FTEs dropped from 4.69 to 3.59 during the 2013/14 FY. Of the 3.59 remaining FTE, 1.22 FTE are funded through departmental endowment, grants, or operating funds, leaving only 2.37 centrally funded FTE. Our faculty members have been stretched to the point where we must cut courses, beginning in the spring 2015 semester.
3) The department should enhance its undergraduate program by developing concentrations under the Food and Agricultural Business major. The concentrations will enable potential students a clearer vision of opportunities in agricultural and resource economics and better prepare students for career opportunities through a more focused curriculum (including an enhanced ability to obtain a minor in relevant subjects.)

Recommendations:

1) Drop the following courses from its course listings as of January 1, 2015.
    a. AREC 201 Econ of Global Food & Fiber System (4)
    b. AREC 320 Micro of Ag, Food & Resources (3)
    c. AREC 355 Agribusiness Marketing & Professional Selling (3)
2) Enact the following course changes to be operational in the 2016/17 undergraduate catalog.
    a. Replace AREC 315 Agricultural & Environmental Law (3) with Agricultural Law (2) and Environmental Law (2), with the intention to offer in alternating years
    b. Replace AREC 430 Food and Agricultural Policy (3) with Food Policy (2), Agricultural Commodity & International Policy (2), and Agricultural Conservation Policy (2), with the intention to offer in alternating years
    c. Convert AREC 445 Economics of Biomass for Renewable Energy (3) from a 3 to a 2-hour course
    d. Dual list AREC 472 Natural Resource Economics and 570 Advanced Natural Resource Economics
    e. Create a 2 or 3 hour 200-level course that plays an approximately equivalent role in the curriculum for NREE majors as AREC 212 does for FAB majors
3) Make course revisions to be operational in the 2016/17 undergraduate catalog.
    a. Change AREC 212 The Agribusiness Firm (3) to AREC 212 Agribusiness Management (3) and make such changes in course content and coverage as are necessary to accommodate the change in focus and other relevant elements of this proposal
    b. Change AREC 442 Agribusiness Management to AREC 442 Advanced Agribusiness Management and use as capstone course for the FAB major
    c. Change AREC 412 Agricultural Finance (3) to AREC 412 Agricultural Finance and Risk Management (3) and broaden course content to include coverage of a variety of risk management tools

   d. Change AREC 444 Economics of Precision Farming Technologies (3) to AREC 444 Economics of Advanced Production Technologies (3) and broaden course content to focus on economics of the adoption and use of the increasingly sophisticated production technologies available to agricultural producers

4) Add the following courses, as resources allow.
   a. Rural Appraisal (2)
   b. Futures & Options Trading (2)
   c. Food & Agricultural Industry Logistics & Supply Chain Analysis (3)
   d. Entrepreneurship in Agricultural & Local Food Systems (2)
5) Require FAB and NREE majors to complete an experiential learning experience in the form of an off-campus internship, a senior thesis/research project, or study abroad.
6) Revise curricular requirements to take effect in the 2016/17 undergraduate catalog.
   a. Require FAB and NREE majors to successfully complete ECON 201 Introductory Economics: A Survey Course (4)
   b. Require FAB and NREE majors to successfully complete ECON 311 Intermediate Microeconomics (3)
   c. Add ALEC 240 Presentation & Sales Strategies for Agricultural Audiences (3) to the courses that can be used to satisfy the Communicating Orally General Education requirement for FAB majors
   d. Allow FDST 150 History and Science of Foods to satisfy the Non-AREC CASNR requirement for FAB majors to complete either FDST 100 or FDST 15) and also count toward the Cultures & Civilizations General Education Elective
7) Consider other changes in the future.
   a. Dropping AREC 420 International Agricultural Trade and Marketing (3) or revising it to support proposed concentration(s)
   b. Allowing some FAB majors to successfully complete ECON 312 Managerial Economics (3) in lieu of ECON 311 Intermediate Microeconomics (3).
   c. Expanding the list of courses that can satisfy the Writing Intensive Course portion of the Communicating in Writing General Education requirement for NREE and some or all FAB majors
   d. Revising the list of courses that can be used to satisfy the CASNR science and the General Education Natural Science requirements for both FAB and NREE majors
   e. Revising the requirement that FAB majors complete a 300- or 400-level ECON course to include other business-related courses
   f. Replacing the requirement that FAB and NREE majors complete nine hours of Non-AREC CASNR Electives with a combination of directed and general electives

8) Develop voluntary concentrations within the FAB major, to take effect beginning in the 2016/17 academic year, or incrementally, as resources allow. Summaries of prototypes developed by the committee follow with draft showcases for each attached as an appendix.
    a. Agribusiness Marketing and Sales
        i. Knowledge Areas/Aims: This concentration promotes student understanding of: food and agricultural marketing systems, the selling process, sales methods, merchandising of agricultural products, marketing strategies, and international agricultural trade and marketing.
        ii. Careers: This concentration prepares students for careers in: agricultural marketing, customer service, agricultural retail sales, and sales positions with local, national, and international firms
        iii. This concentration would rely on ALEC 240 in lieu of AREC 355 and on courses from other departments, e.g., Marketing, Advertising, Retail & Consumer Sciences
    b. Farm Production and Technology Systems
        i. Knowledge Area/Aims: This Concentration takes the place of the Agricultural Equipment System Management concentration
        ii. Careers: The Farm and System Management Concentration prepares students for careers in the production agriculture by providing them a solid understanding of economic principles, agronomics, animal science, and technology for applied decision making that is necessary for modern row crop and animal production.
    c. Finance and Risk Management
        i. Knowledge Areas/Aims: This concentration provides students with basic and applied knowledge of the principles and practices related to finance, insurance and real estate through coursework and experiential learning (internship or a senior research project) and basic business skills, including management, marketing, accounting, and finance (minor in Business Administration)
        ii. Careers: This concentration is designed to give students analysis and decision-making skills to address work within private and public sector organizations that seek to meet the financing and risk management needs of farmer operators, agribusiness managers, and rural residents.
    d. Food Industry Management
        i. Knowledge Areas/Aims: This concentration provides students basic and applied knowledge of the food industry through food industry related coursework and experiential learning either through an off-campus internship or a senior research project; along with the managerial skills needed by firms along the food industry value chain, such as wholesalers, processors, and retailers.
        ii. Careers: Wholesale and Retail Procurement Specialist; Retail Store Management; Market Analyst; Product Line Manager; Merchandising Specialist; Distribution and Logistics Manager; Account Executive

e. Food Systems Entrepreneurship
    i. Knowledge Areas/Aims: This concentration prepares students for initiating start-up businesses engaged in local and regional food systems. Local food systems are emerging around urban centers, and demand is increasing for locally sourced foods such as vegetables, meats, cheeses, eggs, and wine/beer. In addition to farming, business opportunities also exist in input and waste management, food aggregation and distribution, and processing. Student skills need to cover as follows: food systems theory (general structural overview and broad social benefits); land purchasing and lease agreements; equity capital (e.g., venture capital) and finance; funding and grant opportunities; cooperative formation and management; food system planning with ngos and local and regional governments; small business planning and accounting; marketing; food safety regulations; and the practical skills of farming, processing, or distributing
    ii. Careers: Local food production, marketing and support, entrepreneurial opportunities involving local food systems
f. Policy and Law
    i. Knowledge Areas/Aims – This concentration provides students with background in agricultural and resource policy with an emphasis on analytical, writing-intensive course options
    ii. Careers: Attorney; Government; Non-governmental organizations with agriculture and/or environmental/natural resource policy related missions

Undergraduate Program

Findings:

1) There is room in the department to increase undergraduate enrollment. Graduates have been successful in getting jobs and starting salaries for graduates are among the top in the institute.
2) Through careful budgeting and secured endowment funding, the department has access to additional finances to support recruitment of high school and community college students.
3) Funding is now available to develop departmental scholarship programs.
4) Successful recruiting has been accomplished by out of state universities by offering "guaranteed" scholarships, based on students' high school grade points and placement exam scores (ACT, SAT).

Recommendations:

1) Develop a recruiting plan for both high schools and community colleges which includes contacting high school counselors and community college placement personnel. With these contacts, the department can provide information and support to the institutions and target prospective students who possess the skills to be successful in our programs.
2) Follow up with prospective students using several means: face-to-face meetings in group recruitment events or in their current schools; departmental invitations, where students or groups of students are invited to spend time in the department in a seminar or other recruiting activities; social media.
3) Send departmental representatives to recruitment venues, including TEA (Tennessee Education Association), TEEA (Tennessee Environmental Education Association), FFA, and TMTA (Tennessee Mathematics Teacher's Association). Also target specific community colleges, including Cleveland, Columbia, Dyersburg, Jackson, Volunteer, Walters, Chattanooga, Motlow, Nashville, Northeast, Pellissippi, and Roane State. Targeting specific personnel within these institutions will likely be the most efficient use of resources.
4) Develop a scholarship and experiential learning program which incorporates three main thrusts:
    a. Recruit and retain top high school students by providing scholarship incentives. Provide a "guaranteed" scholarship amount if students are admitted and enroll in the department. The guaranteed amount will be calculated as: (HS GPA * $250) + (ACT * $40). The maximum scholarship would be $2,440 for the freshman year. The department would guarantee the calculated amount. If the student receives university or college scholarships, the department would make up the difference so that the total scholarship funds received is no less than the guaranteed amount. But the department would provide no less than $500 regardless of the scholarship amounts from other sources. For example, assume a high school student is accepted into UT and majors in the department, bringing in a 3.8 gpa and a 27 ACT score. The guaranteed scholarship would be $2030. Obviously, there are budget constraints to funding students via departmental scholarships. Each year, the Student/Faculty Awards Committee, along with the department head, will determine the number of scholarships available for the upcoming recruiting class. A companion scholarship program will also target transfer students. A similar guaranteed scholarship program

will be made available to transfer students. The amount of funding will be based on cumulative gpa of each transfer student admitted to UT and offered a scholarship. The guaranteed amount will be calculated as (College GPA averaged across the past 30 hours of coursework – 3.00)* $1,000. As in the high school scholarship example, even if the transfer student receives university or institute scholarships equaling or exceeding the guaranteed amount, the department would still provide funds of ½ the calculated guaranteed amount. This formula would also be used for all students who come into the department on scholarship, either from high school or by transfer, as long as they pass 30 hours of coursework towards their AREC degree each school year.

High School Scholarship Program	Example1	Example2	Example3	Example4
University/College Scholarship	$2,500	$2,000	$1,500	$0
Departmental Scholarship	$500	$500	$530	$2,030
Total Scholarship Funds	$3,000	$2,500	$2,030	$2,030

b. Develop and maintain a departmental Learning Enhancement Program (LEP). The LEP will allow faculty to request departmental funding for up to 10 hours per week for an undergraduate student to assist the faculty member in basic research, teaching, extension, or recruiting activities. A second component of the LEP is developing and managing internship opportunities for undergraduate students. The current Undergraduate and Recruiting Committee will be split into two separate committees: the Undergraduate Program Committee, which will continue with its traditional committee duties; and the Undergraduate Internship and Recruiting Committee, which will further define and manage the LEP and recruiting programs.

c. Expand the departmental undergraduate club experience for our students. Club advisors, in cooperation with other faculty, will develop a more meaningful UG club program through experiential learning opportunities. These opportunities will include participation in departmental seminars; farm and agribusiness tours; NAMA participation; and other appropriate learning activities. The Ag Business/NAMA Club advisors will manage the activities, with support from departmental faculty.

5) The department will also focus on improving the advising program for undergraduate students. Currently faculty advisors are providing excellent advising for students. However with the reduction in teaching FTEs, our advisors are overcommitted. To alleviate the current situation, additional faculty advisors will be named, such that no faculty member will advise more than 20 students. Undergraduate advisors will have a more formal committee formed, with the chair having authority to have direct contact to the CASNR advising director. The department will continue to push for timely processing when student record changes are requested at the college level and when a student status (change of major, probation declared or lifted) change is made at the college/university level.

Outreach

Findings: The department's outreach activities have been modest in the past and have mainly concentrated on professional impact. While these activities have been very productive, another outreach element could provide more support and impact. We have not, for example, been very active in developing continuing relationships with our alumni and stakeholders. With an expanded effort in this area, additional support and appreciation for our department would likely result.

Recommendations:

1) Expand the department's Digital Outreach Accomplishments

a. We will make our departmental web page more "alumni" friendly. Some departments highlight alumni on their web pages, with short bios on each. A separate web page for job placement opportunities will be available for students to access, with timely updates. Other possible outreach venues, including Facebook, Twitter, and LinkedIn will be used to increase the visibility and effectiveness of the department. The departmental Website/Social Media Committee will develop these ideas and recommendations and present to the faculty, with a proposed completion date of July 1, 2015.

b. The Ag Econogram has been a major component of alumni outreach. The Ag Econogram will be converted to an on-line only newsletter. Mailing lists from the development office will be used to create and update our e-mailing list. The newsletter will be mailed out by the end of March and September each year. The Ag Econogram will be written by the Ag Econogram Newsletter committee, with input from the Website/Social Media Committee.

2) Develop an external Advocacy Board. An Advocacy Board (AB) can provide significant support to a department. It is crucial to develop appropriate expectations of the AB, and invite potential members of the AB who will work within the expectations. The department head must work closely with the AB, and invite them to appropriate and meaningful departmental functions. An Advocacy Board Advisory Committee will be named to provide input in developing the AB. Recommendations from the committee to the faculty should be presented by the May, 2015 faculty meeting.

3) A departmental annual awards banquet will be held each April or May, before the end of the academic semester. The banquet will be planned by the Student/Faculty Awards Committee. All departmental faculty members will be expected to support the banquet, both in their attendance and in their assistance to the committee. The committee will work with the development office to offset the cost of the banquet, with the realization that the initial banquet may have to be heavily subsidized with departmental funds. Ideas regarding the banquet include:

a. An outside speaker will be used. This speaker would be the recipient of the "Friend of the Department" or "Outstanding Alumni" award, as noted below.

b. Invite donors to be a part of the program, allowing them to present named awards and scholarships to winners. Currently, these could include members of Dr. Riley's family; Jim Stocker; Farm Credit; and others. We also have two endowment funds (Badenhop and Irwin) which support general departmental funding.

c. Student scholarships and awards should be announced at the banquet, with recipients' attendance required. If known, these could include both departmental and college/university scholarships and awards.
d. Departmental awards should be instituted. These could include "Friend of the Department"; "Outstanding Alumni"; and others. We will also recognize our own faculty and staff who have received awards since the previous banquet.
e. Invitees to the banquet, may include, at the committee's determination: all departmental faculty and staff, including emeritus and adjunct faculty; UITA administration; donors or their next of kin, if donors are deceased; alumni; students, especially those receiving awards or scholarships; stakeholders who provide internships; and others.
f. An expanded banquet event will be planned for 2019, the 100th anniversary of the department here at UT. A Centennial Planning Committee will be formed by spring, 2017.

4) Enhance the department's Seminar Program. The Seminar Committee will provide relevant departmental seminars, planning at least one each semester. These seminars should be on current topics which provide intellectual stimulation for faculty and students. The committee will also help coordinate classroom guest lectures where appropriate and when approved by the instructor.

Summary

The strategic planning effort has yielded effective guidance for the department's future. Implementing this plan will not be immediate in all areas, and making sure our students and faculty are not impacted negatively or over-extended will be a top priority. Change can be challenging, but this document's purpose and plans are invigorating and if fully implemented, will allow the department to move forward to be more effective and successful in the future.

Appendix – Prototype Concentration Showcase

Agricultural Business Marketing & Sales Concentration

Subject/Topic	Course Title	Number	HRs
Communicating through Writing	English Composition I & II	ENGL 101 & ENGL 102	6
	Writing-Intensive Course	ALEC 440 or ENGL 360	3
Communicating Orally	Presentations & Sales Strategies for Ag Audiences	ALEC 240	3
Quantitative Reasoning	Finite Mathematics	MATH 123	3
	Basic Calculus	MATH 125	3
Arts & Humanities	Gen Ed Elective		6
Cultures & Civilizations	History & Culture of Food	FDST 150	3
	Gen Ed Elective		3
Natural Science	Biology Directed Elective	BIOL 101, 102, 130, or 140	4
	Introductory Nutrition	NUTR 100	3
	Gen Ed Elective		8
Social Sciences	Introductory Econ: A Survey Course	ECON 201	4
	Directed Elective	POLS 101, PSYC 110, or SOCI 110	3
Business	Foundations of Accounting	ACCT 200	3
	Intro to Statistics	STAT 201	3
	Intro to Business Management	MGT 201	3
	Marketing & Supply Chain Mgmt	MARK 300	3
	Advertising Principles	ADVT 250	3
Ag & Resource Economics	Opport in Agri, Food & Res Econ	AREC 110	1
	Agribusiness Management	AREC 212	3
	Career Planning & Placement	AREC 310	1
	Intermediate Microeconomics	ECON 311	3
	Quantitative Methods	AREC 324	3
	Farm Business Mgt	AREC 342	3
	Food & Ag Mktg	AREC 350	3
	Senior Seminar	AREC 410	1
	Ag Finance & Risk Management	AREC 412	3
	Advanced Agribusiness Management	AREC 442	3
	Experiential Learning Requirement	AREC XXX	3
	Marketing Team	AREC 356	3
	Food Policy	AREC XXX	2
	Commodity Policy	AREC XXX	2
	Futures & Options	AREC XXX	2
CASNR	Computer Spreadsheet & Database Apps	AGNR 291 & AGNR 292	2
	Science of Foods	FDST 100	3
Directed Electives	Marketing & Sales Elective Courses		6
General Electives	General Electives		6
			120