

**Using Business Simulations and Issue Debates to Facilitate Synthesis  
in Agribusiness Capstone Courses**

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### **Introduction**

In the past decade, most undergraduate and graduate agribusiness management curricula have developed capstone courses. Discussions among those involved in the design and teaching of agribusiness capstone courses reveal some core commonalities in overall purpose and even specific objectives. However, there are considerable differences in content and strategies utilized to achieve course objectives. There is also a shared sense of frustration and concern as to whether an optimal capstone experience is being realized.

Capstone course objectives are wide-ranging. Objectives generally include some combination of: 1) integration of functional knowledge from previous courses in management, marketing, finance, human resource management, and sales; 2) application of acquired knowledge to management problems emanating from the firm's internal and external environment; 3) improvement of written and oral communication skills; and 4) teamwork, particularly in diverse and cross-functional situations. Emphasis is also often learning to think and analyze strategically, understanding competitive strategy, and developing a managerial perspective. The importance of ethical principles, personal and company values, and socially responsible management practices are also highlighted (Hall; Baker; Kepner, Fairchild, and Taylor).

Faculty often serve as facilitators of learning in capstone courses with the goal of helping students make the transition from the state of dependent learners to the state of self-directing learners. As such, students are helped to bridge the gap between the well-defined learning environment of the traditional college classroom and the agribusiness environment, which puts a premium on motivation, initiative, and creativity. Feedback suggests students who have completed capstone courses graduates require less on-the-job training than those without a capstone experience.

There are many frustrations inherent in teaching capstone courses, as they tend not to involve static

situations with static pedagogy. As the mix and content of agribusiness foundation courses continue to change, so does the success of various strategies used in capstone courses. Depending upon the composition of each class, previously successful approaches may fail to meet objectives, creating a need to be flexible and build on-the-fly components into the course. Thus, many course facilitators must change and fine-tune course content in order to provide the optimal capstone experience in preparing students to succeed in the highly competitive world of agribusiness.

### **The What and Why of Capstones**

Crunkilton, Cepica, and Fluke (1997), recently developed a comprehensive reference document on implementing capstone courses in colleges of agriculture, based on a USDA-sponsored three-year project on capstone courses.<sup>1</sup> The project included a literature search, a definition of capstone courses and a list of recommended learning activities for inclusion in capstone courses. Additionally, a national survey of colleges of agriculture was undertaken to identify teaching practices, expected learning outcomes, and suggested learning activities. This research builds on earlier work by agricultural and agribusiness economists such as Litzenburg, et al. (1983, 1987), French and Erven (1985), and Westgren and Litzenburg (1989).

Allen (1992) has outlined the challenges which influence curriculum design and instructional methodologies. As a precursor they note that: 1) fewer people in society understand agriculture; 2) many students have no previous agricultural experience; 3) producers, processors and distributors are becoming more sophisticated. They further acknowledge that human resource issues are becoming increasingly important and that an international dimension must be integrated into our curricula. The ultimate question becomes, “how

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<sup>1</sup>This section draws heavily on the Crunkilton et al. study.

should our faculty be teaching in this new environment?@

In addition to these broad-based challenges, surveys of agricultural and agribusiness employers consistently identify a set of skills and qualities demanded of agricultural college graduates. These to include leadership, oral and written communication skills, the ability to work in teams and with people from diverse backgrounds and in cross-functional areas, critical thinking and problem solving skills. Employers also seek students who have knowledge of current issues and problems, as well as a global perspective on issues and cultures. Traits such as motivation, appreciation for interdependencies, ability to relate to non-agriculturalists, management skills, and computer literacy are also important.

After reviewing the literature, surveying colleges of agriculture with respect to the use of capstone courses and teaching practices, and examining syllabi, Crunkilton, et al. defined a capstone course as:

“a planned learning experience requiring students to synthesize previously learned subject matter content and to integrate new information into their knowledge base for solving simulated or real world problems,@

They note that a capstone course should focus on a complete integration of fragmented disciplinary knowledge, facilitating a meaningful closure to their academic experiences. Further, it should provide students a rich contextual framework that connects theory and application based on their academic experiences and an increased awareness of the interconnection among. A capstone course should serve as both a synthesis and as a bridge. Thus, a capstone course should be scheduled in the last term of a student’s program and ease the transition between academic experiences and entry into a career or further study.

In order for a capstone course to successfully integrate subject matter, synthesize previously acquired knowledge, and prepare students for their careers, it must contain certain key elements. Crunkilton, et al., place these elements into four categories: 1) expected course educational outcomes; 2) required learning

activities; 3) optional learning activities; and 4) responsibilities of the instructor. Expected educational outcomes or skills refer to the skills students should hone during their capstone experience. They include problem-solving and decision-making abilities, capacity for critical-thinking, ability to develop of collaborative and professional relationships and oral and written communications. Skills. Based on their review of research studies and surveys, they concluded that development of these skills is the most significant outcomes of participation in capstone courses. They further concluded that capstone courses are intended to prepare students for careers, generate improved awareness of complex relationships between societies, cultures, and businesses, and serve as a facilitator for the transition from college to the workplace or graduate school.

Several required and optional learning activities to assist the instructor in achieving the above outcomes are suggested by Crunkilton, et al. Among them are: 1) projects, case studies or issue analyses, one of which must be an integral part of a capstone course; 2) small-group work including no less than three and no more than five students undertaking an assignment or term project; 3) informative and stimulating oral communication activities of not less than five minutes presented in class and graded for organization, content, logic, clarity, presentation, and professionalism; 4) intensive writing consisting of no less than a combined total of 15 referenced, double-spaced, typed pages; and 5) activities in which industry representatives and students are brought together in a planned learning environment.

In addition to the above required learning activities, Crunkilton, et al. suggest several optional learning activities designed to facilitate student skill development and achievement of course objectives. These include: 1) critiques of guest speakers, oral presentations, student papers, professional articles, or current events and issues; 2) keeping journals or log books; 3) individual projects; 4) large group work activities including no less than five students collectively addressing an assignment, project, issue analysis, or case study; and 5) field trips.

One of the most significant contributions of the research conducted by Crunkilton et al. is the

identification of teaching practices that enhance and hinder capstone courses. The most effective contributing teaching practices gleaned from their literature review and survey include: 1) assigning large semester-long projects, case studies, or issue analyses; 2) requiring intensive writing and speaking; 3) including department faculty in course formation and teaching; 4) focusing on group work and team cooperation; and 5) using critical thinking to solve real-world problems. Other contributing practices identified by Crunkilton et al. as being useful were: 1) holding open class discussion; 2) involving guest speakers; 3) conducting field trips; 4) team teaching selected topics or the entire course; 5) using faculty peer evaluations; 6) inviting student feedback; 7) studying current events; 8) using debates in class; 9) presenting final project results to real clients or representatives from industry; and 10) establishing deadlines on course projects throughout the term.

The most frequent hindering elements were: 1) time constraints for both students and faculty; 2) lack of student retention of material from previous courses; 3) necessity to review basic principles; 4) formal lectures; 5) varying levels of student experiences; and 6) inadequate funds to support needed learning activities which limit the effectiveness of capstone courses. Other hindering elements included: 1) needing to motivate students; 2) large class size; 3) non-participatory learning on the part of students; 4) limited student computer experience; 5) student criticism which inhibits class discussion; 5) too much emphasis on student memorization; 6) lack of student writing and communication skills; 7) difficulty lining up educational projects and activities; 8) student procrastination; and students 9) requesting excessive direction instead of integrating and using what they already know.

It is clear that capstone courses are critical to the agribusiness student's learning experience, whether at the undergraduate or graduate level. It is also be clear that for a capstone course to achieve desired outcomes, learning activities must be designed, coordinated, and facilitated in ways that differ, often substantially, from most courses in the agribusiness curriculum. This presents interesting challenges for both

students and course facilitators.

### **Issue Debates and Discussions**

The title of the undergraduate agribusiness capstone course at the University of Florida, **Contemporary Issues in Agribusiness Management**, reflects the key role of current issues in the learning matrix of this course. The course facilitators believe strongly that agribusiness graduates need to be able to recognize, address, and analyze current and emerging issues which will affect their industry, business, competitors, suppliers, and customers. The ability to understand and deal intelligently with issues both internal and external to the firm may mean the difference between success and failure. Thus, considerable time is devoted to issue debates and discussions in completing the capstone experience.

The stated objectives **Contemporary Issue in Agribusiness Management** are:

1. to provide students the opportunity to synthesize the knowledge obtained throughout their formal and informal education and to apply this knowledge to contemporary agribusiness management issues with emphasis on managerial decision making;
2. to help prepare students for a successful agribusiness management career by providing an educational experience that will position them for a competitive market-place advantage; and
3. to assist students in the development of their written and oral communication skills;
4. and to help students make the transition from the state of dependent learners to self-directing learners.

These objectives are accomplished through the discussion of contemporary issues, the management of a firm in a simulated business environment (35% of the semester grade), an in-class debate of a contemporary agribusiness issue (20%), and a written evaluation of an approved management-related book (15%) and in-class participation (30%). The remainder of this paper focuses on two of these components: issue debates and discussions and the use of computer business simulations

The treatment of contemporary issues is accomplished via two formats: facilitator led class discussions and student-team issue debates. The two formats provide students the opportunity to consider a wide range of issues that influence business decisions including, but not limited to, domestic and international economic policies, regulatory and environmental issues, and ethical and human-resource concerns. Both students and course facilitators choose issues for discussion. Current events reported in the business and general media, from personal experiences, and from management readings form the basis if issue discussions.

Brief articles for in-class reading to provide a basis for discussion often accompany facilitator-generated issues discussions. Issues frequently addressed include:

- ❑ Myths and realities concerning sexual harassment in the workplace
- ❑ Do incentives matter?
- ❑ Where do you get your information?
- ❑ What are journalism's responsibilities to business community?
- ❑ Ethical issues in business.

Students are encouraged to introduce management-related topics of particular interest gleaned from the news or business media or from other courses. Discussions can get quite heated, particularly when the three course facilitators strongly disagree with each other (real or staged).

The issue debates provide students the opportunity to investigate and articulate an issue, and then defend a position, which may be at odds with their personal view. An associated goal of the issue debate is improvement in oral communication skills. Debate issues are developed by students through in-class discussion. While the course facilitators at times refine suggested issues and provide some guidance, they are for the most part determined by students. Course facilitators refine the initial list deleting issues that are not

amenable to debate.

The mechanics of the issue debates are as follows. Students are placed into teams of two. For each assigned issue, one team takes a *Pro* position and one team takes a *Con* position. Individual teams are randomly assigned to a position on a topic randomly selected from the previously developed list of topics three weeks before each debate. The list contains more topics than will be debated, to ensure that all teams have an equal amount of time to prepare for the debate.

Issue debate expectations include preparation of a typed two-page position brief by each team defining the issue and outlining their position and arguments for distribution in class prior to the debate. Ten minutes are allocated for each team to state their position, followed by ten minutes for debate between the two opposing sides of the issue. About twenty minutes are allotted for in-class discussion of the issue being debated. Course facilitators evaluate the performance/contribution of each debate-team member using a evaluation form. Evaluation criteria include evidence of preparation, presentation quality and style, strength of rebuttal and answers to questions and evidence of teamwork. Student contributions during class discussion are a key part of the class-participation grade.

On balance the issue debates have been a generally positive exercise. They often generate interesting and sometimes even animated discussion. However, students too frequently demonstrate a lack of preparation, especially in terms of the written position briefs. Debates also tend to lose focus of the central issues, requiring facilitators to interject and refocus discussion. In large classes, they are time consuming and, as with anything repeated ten or more times in a term, tend to become a little stale as interest wanes late in the term.

The search for better and varied formats for utilizing issues continues. Our experience suggests that the key to successful use of debates rests in three areas. First, selection of issues for debate is critical. The

process of engaging students to define topics seems to result in interesting topics that are often difficult to debate. An alternative to consider is the development of carefully thought out issues by course facilitators. This would ensure that issues are targeted and well-suited for debate. Second, expectations must be clearly communicated to students. Finally, facilitators must appropriately assign grades in order to send the appropriate signals to students regarding effort and performance. Failure to do so tends to create a culture where upon students learn the cost of shirking is not too great.

Effectively utilizing issues debate and discussion remains challenging. The line between too much facilitator direction and involvement versus student learning responsibilities can be a fine one. However, the bottom line seems to be that debates and discussions of contemporary issues contribute materially to the fulfillment of course objectives.

### **Business Strategy Simulation**

Without a doubt, the centerpiece of the agribusiness capstone course at the University of Florida continues to be the business strategy simulation. Its importance to the course is underpinned by the fact that this activity accounts for 35% of the student's semester grade. The simulation provides the opportunity to develop and implement a strategic business plan for a hypothetical firm and to evaluate the financial impact of the plan on the organization's success. Students organize themselves into three-person management teams for the simulation exercise. For the past four semesters, the simulation of choice has been *The Business Strategy Game: A Global Industry Simulation* created by Thompson and Stappenbeck.

The business strategy simulation requires the management team to be responsible for a wide array of business decisions associated with managing a moderately sized athletic shoe company that has the potential to compete in a global market. Teams are evaluated on the basis of three criteria: an initial meeting with the Board of Directors detailing the management team's business plan (10%); a final Board of Directors meeting

detailing the strengths and weaknesses of the management team's performance during the simulation (15%),<sup>2</sup> which is generated by the simulation program (10%). The Board of Director meetings are expected to include a written report, as well as an oral presentation which makes effective use of visual aids, exhibit clear evidence of teamwork and involvement on the part of each student. Presentations are expected to be 15 to 20 minutes in length, although one hour is reserved in order to accommodate questions and suggestions from the board of directors.

The first Board of Directors meeting focuses on each team's business plan. Teams are evaluated on the basis of the following criteria: content and substance of the written strategic plan; quality of the oral presentation, including response to questions; use of audio-visual aids and supporting written handouts; and evidence of teamwork. The second Board of Directors meeting, which focuses on the business and management-team performance, is also be evaluated on the above criteria. In addition, the second presentation is expected to include the following elements: a review of the strategic plan and the actions taken in light of the stated objectives; a discussion of what was done well, not so well, and why; a complete financial analysis of the firm's performance; what the management team wishes they had done differently and why; and a brief statement the management team's anticipated future direction.

Thompson and Stappenbeck note that the *Business Strategy Game* is a hands-on learning experience that provides valuable strategic and operating decision-making practice and helps students develop business judgment as they encounter an array of business issues. Management teams face the need to assess changing industry and competitive conditions, diagnose the strategies of competitors and anticipate their next moves, find ways to gain a competitive advantage, evaluate different courses of action, develop a strategic company plan,

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<sup>2</sup> This performance rating is based on the sum of points accumulated in 6 performance areas: 1) sales revenue (5 points max); 2) earning per share (20 points max); 3) return on equity (20 points max); 4) bond rating (20 points max); 5) stock price (20 points max); and 6) a strategy rating (15 points max)

and adjust strategic plans in response to changing market and competitor conditions.

Students gain a better understanding of how various functional aspects of a business are integrative. The management team has production plants to operate, labor to hire and reward, inventories to control, marketing strategies to execute, prices to set, accounting and cost data to examine, capital expenditure and investment decisions to make, share holders to keep happy, sales forecasts to estimate product demand, tariff, currency exchange rate, interest rate, stock and bond market, and demand fluctuations to consider. Teams are held accountable for keeping the company profitable, earning an adequate return on equity, protecting their bond rating, maximizing shareholder wealth through dividend payments and stock-price appreciation, and developing an effective business strategy (Thompson and Stappenbeck).

The simulation gives students insight into global competition and the different strategies firms can utilize in world markets in terms of plant location, production, and marketing decisions. The game also improves student understanding of revenue-cost-price relationships. Management teams review operating statements, identifying costs that are out-of-line, compare profitability of different market segments, assess their company's financial condition, and decide on remedial and proactive actions (Thompson and Stappenbeck). Constructing alternative decisions and strategic plans using sensitivity

analysis or what-if games on one and five year horizons allows students to appreciate the value of number crunching and exploring multiple scenarios before pulling the trigger on a decision.

Thompson and Stappenbeck sum up the value of student participation in a business strategy game as follows:

You will build your confidence in analyzing the revenue-cost-profit economics of a business, help you understand how the functional pieces of a business fit together, and develop your powers of managerial judgment. You will gain needed experience and practice in assessing business risk, analyzing industry

and competitive conditions, making decisions from a company-wide perspective, thinking strategically about a company's situation and future prospects, developing strategies and changing them in light of changing conditions, and applying what you have learned... The bottom line is that playing *The Business Strategy Game* will make you better prepared for playing the game of business in real life. We predict that in the process your competitive spirit will be stimulated and that you will have a lot of fun.@

We wholeheartedly agree with the above quote. The business strategy simulation makes business decisions and their consequences a reality, seriously challenges students in a team-based competitive framework (usually for the first time), brings everything they have learned in the curriculum together in a meaningful manner, creates new understanding from old material never before fully appreciated, and develops a deep and abiding understanding of the true meaning of oligopoly. Our experience is clear, management team investment in time, focus, and commitment is highly correlated with success in the business strategy simulation. The authors of *The Business Strategy Game* are correct, the game brings out the competitive juices and makes learning fun.

### **Concluding Comments**

Capstone courses are a breed apart; they are designed to be that way. Agribusiness capstone courses are intended to provide an opportunity to synthesize the often-separate building blocks of our curriculum into a house of agribusiness, and to serve as a bridge between the relative safety of the well-defined college learning environment and the relative uncertainty associated with the more self-directed world of agribusiness. As such, capstone courses cannot, nor should not, look like other courses. The course facilitators at the University of Florida attempt to utilize the Aconsult, join, and withdrawal@ leadership style and attempt to minimize the use of the Atell@ leadership style. Students are asked to a significant degree to view course facilitators as their board of directors, whose role is to provide policy guidelines.

In reality, instructors sometimes have trouble becoming facilitators, and students very often have a great deal of trouble becoming self-motivated, self-directing learners. Students are much more addicted to the lecture-based, dependent-learning style than we often realize. Strange, since we are the ones who fostered, or at least contributed to, the addiction. Nevertheless, the transition is often difficult and so must be reinforced early and often in order to facilitate a positive and successful capstone learning experience.

Facilitator expectations of course participants are critical in achieving desired learning outcomes. When entering new experiences, expectations are vitally important. The course facilitators at the University of Florida have identified the following expectations for students enrolled in agribusiness management capstone course:

- ❑ be an interested and concerned participant;
- ❑ be an interested and concerned listener;
- ❑ be open-minded and willing to objectively evaluate new ideas;
- ❑ be challenging and questioning of yourself, classmates, outside resources, and course facilitators;
- ❑ provide the course facilitators with objective and frequent feedback on their performance; 6) show creativity and ingenuity;
- ❑ have a positive and cooperative attitude;
- ❑ participate in class discussions;
- ❑ exhibit teamwork in all team activities;
- ❑ act with the highest possible level of integrity;
- ❑ accept that in agribusiness management, as well as in life, most things are neither white nor black, but rather shades of gray; and
- ❑ have a commitment to performance excellence including attendance, appropriate study effort and time, thoughtful, on-time assignments, and a questioning mind.

These expectations set the stage for a positive capstone learning experience. A supportive attitude and positive feedback from course facilitators help successfully cement the synthesis, create self-motivated and self-directed individuals, and build a strong bridge to success in the world of agribusiness.

Given the nature and goals of agribusiness capstone courses discussed, it is difficult to know if the optimal set of activities is being incorporated to maximize learning outcomes in a particular situation. Maybe it depends on the university, maybe on the students, but more likely it depends on the skills and perceptions

of the particular faculty involved. While the optimal set of capstone activities remains an open question, there are, no doubt, many paths to success.

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