

10-3-2014

## Learning Through Collaboration and Competition: Incorporating Problem-Based Learning and Competition-Based Learning in a Capstone Course

Ashay Desei  
*University of Wisconsin-Oshkosh*

Michael Tippins  
*University of Wisconsin-Oshkosh*

J. B. Arbaugh  
*University of Wisconsin-Oshkosh*

Follow this and additional works at: <https://scholarship.shu.edu/omj>



Part of the [Organizational Behavior and Theory Commons](#), and the [Organizational Communication Commons](#)

---

### Recommended Citation

Desei, Ashay; Tippins, Michael; and Arbaugh, J. B. (2014) "Learning Through Collaboration and Competition: Incorporating Problem-Based Learning and Competition-Based Learning in a Capstone Course," *Organization Management Journal*: Vol. 11: Iss. 4, Article 7.  
Available at: <https://scholarship.shu.edu/omj/vol11/iss4/7>

# Learning Through Collaboration and Competition: Incorporating Problem-Based Learning and Competition-Based Learning in a Capstone Course

Ashay Desai,<sup>1</sup> Michael Tippins,<sup>2</sup> and J. B. Arbaugh<sup>1</sup>

<sup>1</sup>Department of Management & Human Resources, College of Business, University of Wisconsin–Oshkosh, Oshkosh, Wisconsin, USA

<sup>2</sup>Department of Marketing, College of Business, University of Wisconsin–Oshkosh, Oshkosh, Wisconsin, USA

---

**This article discusses an innovative capstone course to prepare students to be more business-ready upon graduation. By combining aspects of problem-based learning (PBL) and competition-based learning (CBL), a new undergraduate course allows students to gain practical experience while applying classroom knowledge to real business problems. Students are organized into teams of three to five and act as “consultants” to local businesses. Student consultants then develop and present competing recommendations (similar to the television show *The Apprentice*) to high-level managers within the organizations. Benefits from this course accrue not only to students, but also to faculty members, area businesses, and the college. Details are provided to enable the course to be adopted in other undergraduate programs. *Organization Management Journal*, 11: 258–271, 2014. doi: 10.1080/15416518.2014.973793**

---

**Keywords** capstone; integrative; experiential learning

Teaching the business capstone course is a challenge. During the course of their business education, students develop expertise in their chosen fields. Toward the end of this process, when they take a capstone course, they are exposed to functional integration and interdependencies. Most undergraduate students of business strategy typically do not have the breadth or depth of real-world experience of their graduate adult counterparts. Thus, to be effective, learning and teaching methods for traditional-age undergraduates need to “activate” organizational contexts that the typical student lacks in personal experience.

Historically, the strategy capstone course has relied heavily on a combination of texts and cases, rather than on experiential methods (Fowler & Scott, 1996; Thompson & Purdy,

---

Address correspondence to Ashay Desai, Department of Management & Human Resources, College of Business, University of Wisconsin–Oshkosh, 800 Algoma Blvd., Oshkosh, WI 54901, USA. E-mail: [Desai@uwosh.edu](mailto:Desai@uwosh.edu)

2009). However, increasing complexity and the brisk growth of the strategic management domain have affected the teaching process. To meet the challenges posed by these developments, business educators incorporate teaching methods that improve students’ ability to cope with the complex nature of their decision environments (Kayes, 2002). This complexity also forces strategy professors to make a conscious effort to use their class time integrating functional areas and real business experience to ensure graduating “business-ready” students. Thus, capstone strategy courses rely increasingly on simulations, descriptive cases, and other nontraditional teaching designs to expose students to the multifarious nature of business decision making (Conklin, 2013; Paglis, 2013; Stephen, Parente, & Brown, 2002).

In this article, we explore how a consulting experience can be used to apply the strategy framework to business decisions and in so doing, make the capstone course more effective for traditional undergraduate students. In the business curriculum, two examples of providing practical experience are work-study and internship programs, both of which provide a mix of theory and application. Typical interns may have very limited access to pertinent information, both in scope and in level in an organization. The role that the students play in our course is much more than that of the typical internship. Our students are provided with a broader view of the organization and are able to interact with top-level managers. Furthermore, we have taken the consulting experience to a higher level by introducing the element of competition between two teams, similar to the television show *The Apprentice*. This feature appeals to the intrinsic desire of our students to perform at an elevated intensity.

Using this approach, we have taught this course for 12 semesters and have successfully completed projects for 26 organizations. The structure of the article is as follows: First, we provide an overview of common approaches used in capstone courses; next, we discuss the concepts of

problem-based learning (PBL) and competition-based learning (CBL) as they form the cornerstones of our course; finally, we describe the workings and benefits of this alternative capstone experience.

Although we have a unique capstone course in our institution, it is not the only one in the United States. Similar courses have been offered in other institutions (Robinson, Sherwood, & DePaolo, 2010). We believe there are similarities and parallels in the approaches, but there are differences. Robinson et al. (2010) explain their experience using student teams in a strategic management capstone course that combines service learning and problem-based learning. Gilinski and Robinson (2008) indicate that engaging student attention has become the key to the success of business education, and that introducing competition could increase the level of involvement in classes. Specifically, when instructing business students, it has been noted that “both competition and cooperation are as necessary in business as they are in other aspects of our lives” (Berg, 2010, p. 176). Our aim in this article is to describe our experience and build upon the guidelines provided by previous researchers (e.g., Fitzsimons, 2014; Gilinski & Robinson, 2008; Robinson et al., 2010) regarding a hands-on culminating capstone course. We provide additional evidence that experiential learning can work very well and that adding an intergroup competitive element to the overall experience can be beneficial for all of the parties involved. *American Idol*, *The Apprentice*, and *The Amazing Race* are television programs about competitive rivalry that are part of popular culture for this generation of students, who seek the thrill of competition. We use a PBL approach for improved decision-making skills in an existing capstone course, with an added element of competition (CBL) to “raise the stakes” for students. In the following sections, we elaborate on our experience.

## PEDAGOGY IN CAPSTONE COURSES

Capstone strategy courses should provide students with the opportunity to integrate their knowledge of functional areas within a business. Most business school curricula offer limited opportunities to develop such integrated structures (Hartenian, Schellenger, & Frederickson, 2001; Thompson & Purdy, 2009). Sorenson and Wittmer (1996) acknowledge the difficulty of developing cross-functional perspectives and the challenges of developing shared knowledge bases for cooperation and coordination among functional areas. The current trend toward more experiential approaches to learning might help strategy faculty fill this experience gap (Fitzsimons, 2014; Saiia, Macy, & Boyd, 2008). Among the main methods, problem-based learning, case studies, and simulations are used extensively in capstone courses (Keys & Wolfe, 1990; Hamilton, McFarland, & Mirchandani, 2000; Nargundkar, Samaddar, & Mukhopadhyay, 2014). We now discuss the reasoning behind and limitations of these approaches.

## Case Studies and Simulations

The case method of teaching, in which students read, analyze, and discuss written versions of real events, is an effective method for helping students meet the uncertain decision situations of the business world. Similarly, simulations are considered for both their increasingly sophisticated designs and their ability to integrate technology into the learning process (Riley, Cadotte, Bonney, & MacGuire, 2013). They provide a relatively simple hands-on experience with management, but can be manipulated to create uncertainties (Eittington, 1996; Kayes, 2002). Students gain hands-on experience with applying the concepts learned earlier in more traditional readings and cases. At the same time, simulations add a fun and stimulating instructional environment, allowing students to relax and enjoy the learning process. Both approaches (cases and simulations) are designed to afford integrative insight to business students. Keys and Wolfe (1990) conclude that several studies indicate simulations are better than case studies in strategic management courses; however, other studies indicate case studies are more effective (Hemmasi & Graf, 1992).

Although case studies and simulations can be useful learning tools, they are not without limitations. Most cases focus on intense “within-group” activities, but do not involve active interaction among groups or other external sources (Hitt, Ireland, & Hoskisson, 2014). As Fowler and Scott (1996) suggest, case studies have limited availability of data and information about companies, some of which is outdated. Furthermore, students can, through online searches, get information about the current situation of the company in focus, which could seriously bias their analysis. Therefore, some instructors artificially exclude current information from the analysis that could negatively impact the “reality” of the experience (Stinson & Milter, 1996). Very few cases truly expose students to all possible aspects of the strategic management framework. Hemmasi and Graf’s (1992) results show that although computer simulations can enhance integrative knowledge, they still lack the realism of a business experience.

## Problem-Based Learning

Problem-based learning (PBL) is a technique centered on real-life problems. It was designed to prepare graduate medical students using an alternative instructional model to traditional ways of teaching (McKeachie & Svinicki, 2014). The main theme is to use discovery and analysis to solve ill-structured real-world problems, rather than to apply a set of tools to a well-defined problem. Instead of working on an instructor-provided set of information, students have to make decisions on the scope and nature of information they need to acquire in order to structure the ill-defined problems (Joham & Clarke, 2012; Nargundkar et al. 2014; Solomon, 2003). Unlike traditional teaching processes, a PBL approach is designed intentionally to act as a mechanism to encourage the attainment of new information. It is critical that students should not have prior

knowledge pertaining to the problem, as this diminishes the learning intensity (Boud & Feletti, 1997). As Birch (1986) suggests: “Problem-based learning is (argued to be) the most effective means of developing the general qualities of the mind of the student, to securing an integration of academic and operational approaches . . . and to instilling a high level of motivation and a capacity for active learning” (p. 73). Thus, PBL can be appropriate for teaching complicated cross-functional business issues. Using this approach, participants can search for solutions to real multifaceted business problems in a collaborative manner, which drives the learning (Miller, 2004; Nargundkar et al., 2014). Robinson et al. (2010) describe this approach very well. We build upon this approach by adding intergroup competition to our course.

### Competition-Based Learning

Although the literature on teams and performance is filled with examples of alliances and collaboration, the reality is that working toward solutions, in the face of competition, can be a struggle (Agarwal & Echambadi, 2002; Kliegl & Weaver, 2014). As Cosier and Schwenk (1990) indicate, cooperative behavior often allows groups to achieve more than if the individuals acted separately; however, the lack of competition can result in lower effort levels as there is no motivation to improve. Adding an element of competition can inspire creativity and increase productivity within teams (Baer, Leenders, Oldham, & Vadera, 2010; Kirchmeyer & Cohen, 1992). Previous work on the effects of intergroup rivalry on a variety of other group outcomes has found support for the notion that intergroup competition can foster collaboration and better performance (e.g., Bornstein & Erev, 1994). Van Vugt, De Cremer, and Janssen (2007) suggest that in-group cooperation increases in the face of intergroup rivalry. Mulvey and Ribbens (1999) find that intergroup competition increased productivity and decreased inefficiency. They find that contributions were higher in the intergroup competition condition than in the no competition condition. In our course, groups compete to provide solutions to the clients. We use grading criteria to enhance intergroup competition. Asking students to engage in a competitive battle simulates the environment where intragroup alliances are established and utilized in order to increase the likelihood of a superior collaborative outcome. The participants, then, not only understand the value of collaboration that is required for effective team performance and true problem solving, but also exercise cooperative behavior routinely.

Furthermore, the level of collaboration and performance is affected by the level of competition and the nature of groups, closed versus open (Baer et al., 2010; Choi & Thompson, 2005). In the face of moderate competition, the desire to win, if channeled correctly, can add to team performance (Kirchmeyer & Cohen, 1992). Baer et al. (2010) find that group performance increases in conditions of intermediate competition in closed groups (i.e., groups with stable membership), as opposed

to open groups (where membership changes). We use several tenets just described in designing our course. We manage the intensity of cooperative and competitive behavior among students by structuring the course and the projects.

### COURSE DESIGN

To create confident and more effective business students, we changed our “capstone” course to be a more real-life culminating experience. The original course focused on developing students’ analytical skills within the strategic management context in a classroom setting. The approach to teaching the original course relied on written case analyses, industry analyses, and in-class discussion of current issues. Toward the latter half of the course, student groups performed a strategic analysis on a particular company and its industry. Although the course was comprehensive, it fell short of providing an integrative, hands-on experience to graduating seniors.

The alternative capstone course is a projects-based course that offers business students an opportunity to gain experience by applying knowledge acquired in the classroom to real business problems/questions. Instead of learning through a greater proportion of in-class work and case discussions, the redesigned course requires students to learn through actual hands-on work experience. Working with area businesses and not-for-profit groups, our student teams (two for each client) compete. They are responsible for identifying actual problems/issues within the organization, and are tasked with collecting and analyzing data from a variety of sources (e.g., client employees, customers, suppliers, etc.) and then communicating appropriate solutions. This new consulting course is meant to provide a capstone experience that is dynamic and cross-functional. The live project optimizes learning transfer by creating a social context of multifunctional teams that reflects the real-world experience likely encountered by professionals. We emphasize a competitive norm by giving more points to the team that gets better reviews from the clients. This stems from our belief that competitive norms are ubiquitous in real-world settings, and thus the projects would be more realistic for the students. We believe that emphasizing the competitive aspect would increase students’ interest and involvement in their projects (Dunham, 2003).

By providing students with an opportunity to work on real business difficulties, we are able to take them out of the classroom and show them how actual problems are addressed. At the same time, they learn the dual virtues of collaboration and competition. We now describe the key components of this course pertaining to projects, students, instructors, and some of the learning processes. The timeline for the activities discussed can be seen in Table 1.

### Project Selection and Fees

The process aspect of PBL focuses on enhancing student education by relying on students working in groups, learning

TABLE 1  
Broad timeline for the course activities

Phase	Week	Activity
Course preparation	8 weeks prior	Send application material to companies and students
	4–6 weeks prior	Receive and evaluate applications; notify students of admission status
	2–4 weeks prior	Confirm projects; notify companies
During semester	Week 1	Introductions and assign projects to teams
	Week 2	Teams meet with clients
	Weeks 3–6	Contracts are signed and project work begins
	Week 7	Interim presentation; present first round proposals to clients and prepare report of meeting; teams informally report client's reactions and brainstorm implementations
	Weeks 8–12	Continuation of project work
	Week 12	Final deliverables presented to professors; prepare report feedback on formal implementation proposals
	Week 13	Final deliverables presented to professors and clients
Postcourse	2 weeks after	Feedback session with clients; payment of fees

from one another, and sharing information and different perspectives (Gijsselaers, 1996; Joham & Clarke, 2012; Rhodes & Garrick, 2003; Robinson et al., 2010). Hamilton, McFarland, and Mirchandani (2000), commenting on the use of external projects, suggest, “Well-selected projects will enhance the learning of material taught in class and thus provide a high degree of relevancy and increase the students’ hands-on experience as they learn by doing” (p. 107). The content portion of our course deals with cross-disciplinary knowledge; therefore, the course projects must be sufficiently broad, demanding, and complex to require students to work in teams rather than individually. Thus, projects and clients for this course are selected based on predetermined criteria. Clients range from large multinationals to local area businesses. We use multiple sources to secure clients. In the initial stages of this course, we send informational flyers to our College Advisory Board and members of the local chamber of commerce. We also request our dean, associate dean, and internship director to promote the course through their contacts. This course has received publicity as initial student successes were mentioned in local newspapers and College of Business newsletters. We secured some clients through word of mouth. We never used our own consulting projects for our class, for two reasons. First, we believe that would constitute a conflict of interest; and second, the instructors, so far, have projects that are more narrow and generally too focused for the purposes of this course.

Our twin objectives of giving students a broad cross-functional experience and providing an opportunity to become familiar with real complex organizational issues guide the selection of projects to ensure that students achieve all the learning objectives by the end of the course. Although some objectives can be met across the range of team projects in a single

class, a single-function problem does not convey the true nature of interdependencies consistent with recommendations in the problem-based learning literature (Barrows, 1996). Our projects can involve a variety of strategic issues or challenges, and typically cross functional boundaries. Although the overall project requires the application of integrative knowledge, the project is designed so that various aspects require some contribution from different functions. The potential clients explain the broad scope of the project to the instructors. They specify the larger concerns and what they view as the desired outcomes. Usually it is an iterative process between the instructors and the local area companies, as projects lacking cross functionality, or overly broad proposals, need to be firmed up. Projects chosen require analysis of strategic issues, planning, and development of implementable solutions—even running trial or test runs. To ensure that projects can be completed within a semester and that teams do not work for the client, projects do not include the actual implementation itself by the student team. In past semesters, students have worked on several projects, such as developing relocation plans for moving a not-for-profit organization’s operations from a small to a considerably larger facility, strategic planning to expand business operations for a local bank and a mid-sized manufacturing company, efficiency improvement projects for large companies, and creating a comprehensive business plan for family businesses and non-profit organizations. Examples of these projects are listed in Table 2.

We do charge the clients nominal donations. The project fees (\$1500–\$5000) depend on the size (sales) of the organization. Nonprofit organizations are exempt from paying any fees. The fees are a donation to the College of Business student fund (travel to conferences, student club, guest speakers, and other student activities). Clients donate this only if they are satisfied

TABLE 2  
Examples of projects

Type of company	Strategy concepts	Brief project description
Humane Society (nonprofit)	Managing growth, strategic planning, capital budgeting	Client organization had received a larger (four times larger in square footage) facility (as a gift). Students created a blueprint to move the facility from the old to the new premises. Students were asked to prepare a plan to grow into the larger premises. This included newer capital budgets, marketing and recruitment plans, new scheduling staff, and promotional plans. Students also advised on the new layout for better interaction between animals and potential adopters.
Catalogue company (national)	Incorporating new business models, competitive analysis, strategy implementation	Company had been using the old paper catalogue model to promote their items, receive and fulfill orders. Students provided a plan to move the system toward a greater proportion of online business.
Manufacturing company (capital goods)	Industry analysis using five forces, competitor analysis, resource-based strategy	Students were asked to prepare a 5-year growth plan for a company. This included industry analysis, competitor analysis, market potential, and internal resource analysis.
Local credit union (nonprofit)	Strategic planning, strategy evaluation using balanced scorecard, strategic control	This financial institution became an open charter credit union. Students used a balanced score card approach to create a strategic plan for this client.
Defense contractor (multinational)	Strategy evaluation, value chain analysis, activity-based costing, and strategic control	This organization acquired a new line of products (heavy vehicles-non defense). The project focused on reengineering the acquired unit's marketing and supply chain activities to achieve cost savings.
Packaging company (national)	Mergers and acquisitions, system integration, mission and vision statements	This organization recently acquired a competitor. Client asked students to evaluate their integration plan. This included supply chain, marketing, and human resources processes. Client needed specific advice on how to address product and market overlap.

with the project outcomes. We believe that this secures greater commitment from all parties. Students do not get paid for their services. We have taken several steps to address the issue of client confidentiality. Students fill out a form (a pledge). During the first week of class, we stress the importance of maintaining discretion. Most companies also have the students sign their nondisclosure forms. Any data that are collected by the students are handed over to the clients at the end of the project. Several companies do not allow students to take any documents outside their premises.

### Student Team Selection

As Stephen, Parente, and Brown (2002) indicate, employers tend to look for employees who can fit into cross-functional work environments in addition to their acquired knowledge within one or two specific functional areas. We address the former requirement throughout the duration of this course. The

latter requirement is handled through a selection process prior to the beginning of this course. Admittance to this course is based on merit (educational background, work experience, and grade-point average [GPA]). Students must submit an application to the course instructors before they enroll. Only those students who have the willingness and motivation to join this course are enrolled. Furthermore, we try to bring different majors into the class to include broad-based expertise. We offer two sections of this course per year. The college offers the traditional capstone course to all other students.

We assign students to project teams, typically with four or five members. We select teams a week before the course begins, and all participants are notified of the team composition. Like any other course that uses student team projects, we consider different composition based on heterogeneity in its varied forms (e.g., gender, experience, educational background). After the teams are formed, we do not allow any change in membership (Baer et al., 2010).

### Project-Related Activities and Client Interaction

Each team forms a consulting organization. Each project/client is assigned two teams working independently. After the overall issues are identified and the project scope is determined, participants work toward defining and delineating ancillary interests and root issues. This experience includes grappling with true business problems, traveling frequently to the organization's site, collaborative work, interacting with client personnel, working together as a team on projects with actual deadlines and clear responsibilities, and synchronizing application of in-class discussion of tools and techniques. Students are encouraged to revisit the problems in subteams and to interact with different members of the client organization to get a wide-ranging view of problems. Students closely observe the internal environment, practices, and challenges of actual managers and document their findings for later analysis. The teams conduct research depending on the complexity of the project, for example, market analysis, financial data analysis, and/or internal opinion surveys as deemed necessary to solve the problem successfully. Students allocate work among themselves. We track this through weekly interaction and through a course website.

### Weekly Discussions

Class meetings follow one of three formats: introductions and setting direction and specific goal determination with the whole class (first week), ongoing interactive critique with individual groups (several weeks), and wrap-up with feedback from groups and the whole class (last week). The initial meeting sets the stage for the project, providing an explanation of syllabus details and an expectation of what students need to do. According to Rhodes and Garrick (2003), students report high-quality team experiences when they are permitted to work as a team for a long time and are provided clear instructions by the instructors about the processes and outcomes involved in the project.

We have preset lectures on broad topics, such as industry analysis, internal analysis, mission and vision, and strategic control (such as the balanced score card approach). We do not use a textbook, but do provide PowerPoint slides and readings related to the basic concepts of strategic management. The students may or may not use each topic for their specific consulting project. We do have an accelerated timeline for the concepts. We provide additional reading material specific to the projects (different readings for for-profit and nonprofit organizations) for that semester. We have included a copy of the syllabus (see appendix). After 2 weeks of preset lectures and discussion topics (environmental analysis, strategic thinking and implementation, client relationship management, etc.), the course outline becomes more flexible. Students are encouraged to request lectures pertaining specifically to their projects. Every week (not necessarily during class time), we have discussions with each team separately. Mierson and Friert (2004) suggest

that the PBL approach requires instructors to expand traditional classroom roles from just lecturers and trainers to facilitators, mentors, and advisors. Early in the semester, we engage in "hand-holding" or supporting and encouraging students as they grapple with their initial uncertainty and occasional frustration. During the latter two-thirds of the semester, during class time students summarize their recent project activities, discuss what they learned, and explain their plans for the next week. This approach allows for reflective in-class interaction where students can learn from each other's shared, outside-the-classroom experience. Most projects are intricate and require attention to preparation and synchronization of details. Thus, allowing adequate time for students to get feedback on one area of their project before they progress to subsequent areas augments their learning (Rhodes & Garrick, 2003).

Generally, students in this course are proactive and want to make a positive impact on the organization. Furthermore, students are encouraged to assist each other in getting past superficial surface symptoms to pursue a deeper understanding of the root issues. Peers thus dig more deeply into their own knowledge bases and offer diverse viewpoints, prompting further inquiry into each other's viewpoints and thought processes. Each group is assigned a group discussion area that is accessible only to that group. Students are asked to use group discussion areas within the course site. This not only helps us maintain a record of activities and discussion, but also serves as a repository for articles, data, and other project-related material.

Students are encouraged regularly to look for multiple issues and deeper problems in the situation before they decide on solutions. Although such an approach can be addressed in a case study in a classroom setting, reality offers a new twist. If students arrive at solutions prematurely, the clients are quick to unravel this shortcoming. Team members quickly realize through their interactions with the instructors, faculty panel, and clients that organizational problems are not always clear and stand-alone; they cannot be dissected easily, or comprehended fully with a cursory investigation, especially when they are strategic in nature. Arriving at solutions too soon actually may result in root causes remaining unaddressed or, worse, undetected. In one project, the client company was in the business of making large machines (semicustomized). The company wanted sales growth with less emphasis on profit—in other words, to make just enough profit to keep the banks and creditors happy. During the course of the project, our students uncovered some cash-flow issues. Based on the numbers and initial information gathering, the students identified a problem with costing. We asked the students to talk to additional members of the organization to understand the reasons behind these cost overruns. Students uncovered some conflict between engineers, sales, and manufacturing. They also realized that one of the owners was making improvements to the already agreed-upon design. The intention, which was to provide greater client satisfaction, was noble, but sometimes it was detrimental to the delivery schedule, cost overruns, and manufacturing capacity.

### Role of Instructors, Faculty Panel, and Guest Speakers

This course requires extensive planning and preparation by faculty prior to the start of the course when projects are being evaluated. When the course goes “live,” instructors become facilitators of the learning process. Under the guiding theme of cross-disciplinary integration, we use a team teaching approach, along with an advisory faculty panel. Team teaching often is cited as a way of providing students and faculty with a holistic perspective (Watkins, 1996). Ideally, faculty members from several disciplines should work together to deliver a course with a truly interdisciplinary perspective. However, given the resource constraints and scheduling difficulties in any state university (Young & Kram, 1996), two instructors with complementary knowledge can coordinate the delivery of the course material. Faculty members need to keep a strict eye on the extent of control they exercise. Because our feel for the inquiry process is more informed, the appeal to provide unwarranted guidance is very real. In this learning model, students and instructors become co-participants in learning (Conklin, 2013; Ferris, 2002). During the initial weeks of the consulting, a large part of our time is devoted to coaching. As the semester progresses, we move toward giving feedback and being cheerleaders for our students. As instructors, we strive to maintain neutrality while discussing issues with competing teams and restraint while discussing problems and solutions. Because our objective is to ensure that the solutions come from the group, we concentrate on asking questions rather than giving answers (Hunt & Weintraub, 2004).

Our role as instructors is to provide students with guidance in decoding ambiguous cues that are embedded in the social and decision contexts of the projects and to use competition to enhance this process. Ambiguous cues typically arise from political issues in client organizations. These issues affect information gathering and analysis on two levels. As we mentioned before, there are two teams working on each project. Usually the two teams tend to spend more or less time with different client members. As a result, the dissimilarity in time spent with diverse members of the client organization tends to affect the two teams differently. Also, within each team, some members may get seemingly conflicting information (client member’s perception), which could be politically driven. We, as instructors, remind the teams to be as objective and rational as possible. We stop short of telling them the specifics; however, we do not stop short of asking questions. Questions typically include: Why do you think this is happening? What do you think is the underlying issue? Should you talk to someone else in this department? Is this the person’s opinion, or are there data to back this claim? In some instances, the students seem to get stuck. If we believe it is a genuine obstacle (they are still students), we do provide some broad hints, which are in some cases even cryptic.

The end result, we believe, is shifting responsibility for learning onto students and changing the student–instructor

relationship from hierarchical to intensive, cooperative mentoring (Conklin, 2013; Ferris, 2002). In a traditional course setting, instructors have predetermined course content with specific time allotted to certain topics that are deemed to be “important.” The information flows from the instructors to the students, with some deviation as required based on classroom discussion and question. In our class, however, almost two-thirds of the instruction is driven by students’ needs to provide solutions. Two teams working with one client may decide to follow related but dissimilar paths, each requiring discussions on diverse concepts. For example, one team may focus more on the organization’s internal processes using value chain analysis, and the other team may focus more on external aspects. Although we have common sessions to cover internal and external analysis (see syllabus in the appendix), we spend extra time on a particular topic with individual groups if they deem it necessary. We cover these extra sessions in break-out rooms or outside the class during instructor office hours.

In addition to the lead faculty, students have access to a cross-functional faculty panel. The faculty panel, comprised of faculty members from disciplines not represented by the two lead instructors, acts as a sounding board, serves as a flexible resource, and advises the student groups. Before the semester begins, we provide the faculty panel with past project reports to familiarize members with the project synopsis and ensure that they are on board from the start. This saves time, creates meaningful discussions when students need their advice, and allows panel members to provide valuable feedback to each project team.

If the team members are unable to resolve their differences, or if a lead instructor is unable to answer technical questions that are outside his or her own discipline, students are encouraged to use the faculty panel as a sounding board. The panel members interact with the students on specific areas of their expertise. They provide guidance only on these areas. The panel members typically do not have access to all the information pertaining to the full scope of the project; hence, it is difficult for them to provide a comprehensive solution. They can suggest only some possibilities. It is up to the students to decide what information can be used to create a workable solution. By discussing difficult project-related issues and their implications with a multidisciplinary panel, students continuously practice solving problems in a relatively safe environment. The faculty panel also evaluates student presentations before they are made to the clients. The faculty panel receives information 1 week prior to the student presentations.

We use a few guest speakers, primarily consultants, in this course. Students hear firsthand about the importance of client serving and handling tricky situations. This provides the students with a role model and a more real, worldly perspective on the art and process of consulting. This exposure also is likely to enhance information about careers in consulting.



## Presentations and Final Reports

Student teams are responsible for making one interim and two final presentations (one to the faculty panel and one to the client). Each project team has 20–25 minutes to present its project deliverables to the faculty panel and the instructor, and fields questions for another 10–15 minutes. Making presentations to the faculty panel prepares the students to handle difficult questions and allows them to work on the quality and duration of the presentation. These deliverables, due to their sequential nature, build upon the previous assignment and are graded by the instructors. Such exchange of ideas helps participants improve their presentation skills. This helps the faculty to review the information in a formal setting and perform a quality check.

Each project team has 30 minutes to present its final project deliverables to the client representatives, and fields questions for another 15–20 minutes. At least one instructor is present during the presentation to get the client's perspective on the project and the student team's efforts. This gives the instructors a better understanding of the team's performance, challenges faced by the team, and the team's ability to work closely with the client, all of which are considered for grading purposes. Both teams are evaluated and are given verbal feedback by the client. The client team then decides which team performed better and explains the rationale behind their choice (similar to the television show *The Apprentice*).

The final report is not a result of a unilateral process, but rather a culmination of a semester-long interaction between clients and students. We do not have a uniform structure for the final report. The page length varies, usually 25–35 pages (single spaced). The report and specific suggestions are consistent and readily applicable within the analyzed environmental context and can be implemented given the organizational resource constraints. The outcomes and recommendations reflect reliability and validity because the data are rooted in real action, embedded in circumstances that really matter to the organization. The consistency requirement ensures that the team members share information and collectively decide on the recommendations after taking into account the impact of their suggestions on different functional areas and organizational processes. Teams are encouraged to test the feasibility of their views with their clients during the latter half of the projects.

## Debriefing

At the end of the semester, we have a debriefing session wherein all participants discuss their experiences to complete the learning cycle. During this session, we explain why one team did better than the other. Also, we draw out students' comments about the general approach they adopted to problem solving, and the attitudes, behaviors, and emotions experienced during the semester. Participants also evaluate their group learning process, discuss their group experiences (e.g., deliberate their personal contribution to the group), and give feedback on

how other members helped their projects. They discuss the skills they acquired, how the groups interacted, and what could be done differently next time to be more effective. Overall, students give positive feedback regarding the opportunity of the consulting project in providing practical experience that they could take to the workplace. Some students experience initial anxiety working on their consulting projects; however, by the end of this course, the level of perceived confidence in successful completion increases along with a sense of task identity. Moreover, students' perceived belief that they can communicate, negotiate, and work effectively as part of a multifunctional team is elevated at the end of the course.

## Grading Scheme

Students are graded on several aspects (see the appendix). There is one exam consisting of multiple choice and short answers, which assesses the concepts portion of the course. The exam's relative weight is low, as we expect students to focus more on the project and write-up. Because the grade for this course is a combination of individual and team performance, students hand in detailed peer evaluations. Because interdependence and collaboration are vital to complete the requirements of this course, the grading structure should include a peer evaluation component. We use a peer evaluation form that covers the areas of cooperation, contribution, timeliness, dependability, and originality. The peer evaluation grade is approximately 17% of the total grade. One concern often encountered when using student project teams is the "free-rider" problem. A student may not give his or her best efforts to the team or may rely on the team to provide essential knowledge and information (e.g., the student may avoid reading for the course) (Miller, 2004). We have very few teams that experience classic team issues, such as free riders. Teams are encouraged to work through these issues during the course of the project, and instructors work closely with them to help them do so. We find most troubled teams ultimately sort out their issues throughout the semester. The motivation to do well in the consulting project leads teams with problems to seek our help in resolving them. As Bacon, Stewart, and Silver (1999) suggest, students experience high-quality team experiences when they use peer evaluation. Negative peer evaluations have high weights and can affect course grades. If a participant is rated lower by his or her peers, we meet with the group and also look at the details of the discussion and files on our course site. The group discussion area tends to reveal additional details of group dynamics.

We do student evaluations of the course and instructors in the class. The student ratings have been consistently high for this course. The student comments are also generally very favorable. Examples of student comments are listed in Table 3. We have a pre- and posttest for all our capstone classes, and we use an ETS (Educational Testing Service) test for all our graduating seniors. Students in this class tend to do better than the average in other capstone courses. However, we need to be cautious

TABLE 3  
Sample student comments (original and unedited)

---

<p>I liked how we were allowed to work independently &amp; how we had an actual relevant, tangible, real project when we finished. The class was so much better than the nightmares I've heard about from Strategic management.</p> <p>Thank you for teaching this class, you were always available to the students. I hope all students will be required to take this course.</p> <p>This class was good and is great for students w/little work experience to gain some. Also I like being pre-selected for the groups.</p> <p>Always very positive, and made me feel like professors were all involved in the class and our education in general.</p> <p>Loved the class. The intensity brought our group together. Have formed close friendships with a couple of my group members.</p> <p>I liked that the goal was not concepts, but learning. I liked that we spent more time thinking about what can be done. This was reading with a purpose.</p> <p>Phew . . . it's over. I am glad and sad. We came in second but learned a lot.</p> <p>Good balance btw lecture/reading/discussion and outside activities. Faculty panel a big plus.</p> <p>I learned a lot and the semester went very quickly. Would like to combine this class with another class. Good use of credits.</p> <p>I really enjoyed your class- it was one of the best classes I have taken in the program. Your energy was great. There seemed like there was one too many readings for some weeks. It was nice having 2 weeks prior to the final presentation.</p> <p>Gave us time to fill the gaps.</p> <p>Biggest eye opener was politics at work place. I think Mr. XXXX confided more with our group than he did with his boss. Now I know why consulting is such a big business.</p> <p>Creating a balanced scorecard was a challenge. I found it hard to quantify all the performance outcomes. The faculty panel helped us develop indirect measures. One of the biggest lessons I learnt was that convincing the client is very important. We needed to have mutual agreement between the clients and our group in order to complete the project successfully.</p>	
--	--

---

about making evaluative statements. We discuss this further in the limitations section.

### DISCUSSION OF COURSE BENEFITS AND LIMITATIONS

The benefits of our innovative course are applicable not only to the students, who graduate more business-ready, but also to the faculty members, organizations, and institutions involved in the course. From the students' perspective, the primary benefits of the course are that (a) the course allows students to integrate knowledge gained in the classroom and apply it to real business problems/issues, and (b) the course introduces students to the management consulting sector and helps to improve their analytical problem solving, teamwork, communication, and presentation skills. Furthermore, such a flexible approach can achieve other desired outcomes by increasing students' tolerance of ambiguity, self-driven learning, and higher self-esteem and confidence as a result of a successfully completed project. Although anecdotal in nature, feedback from our students clearly indicates that their learning experience was enhanced by the use of competition-based motivation. The challenge for instructors is to discover the balance between competition and cooperation that is most functional for the purposes of this class (Baer et al., 2010). We emphasize that although the teams compete against each other, they still represent the college. Several participants, in the debriefing session, stated that the dual nature

of this exercise helped them learn the positives of competition while engaging in cooperative strategies.

We believe the iterative process of client discussion, classroom instruction, in-group brainstorming, and gathering further information could have a lasting impact on the students. Given the achievement-oriented disposition of these students, they want to suggest changes and make something happen as quickly as they can. We, as instructors, have found this behavior in most teams. The additional competitive facet of the project further fuels this stance. We therefore stress the importance of open discussion and the progressive nature of investigation to show the participants how important it is to accumulate data leading to root issues rather than to make hasty conclusions. After a few meetings with different members of the client organization, students realize that each issue/problem has multiple perspectives. On numerous occasions, students realized that their initial findings were not the true cause of the problem, but merely symptoms. We encourage members of the student consulting teams to spend time with the client employees, observing them at work. This helps them understand the process and get input from different people. For example, during one project, the client requested that our students accompany their representatives on visits to a few of their authorized dealers. When students pooled their findings, they observed significant variance in the client's processes and dealers' processes, which helped them in their recommendations.

Faculty members benefit by gaining an opportunity to interact closely with area business professionals, thus keeping abreast of industry changes and becoming better acquainted with current business problems. The different projects require faculty members to confront new materials and new ideas each semester. One author of this article has gained greater insight in the area of project management due to a series of guest lectures arranged at the request of students.

In addition, the connections made within the business community are valuable for future research and/or consulting opportunities. Other benefits include improved relationships among faculty members from dissimilar disciplines and the opportunity for interdisciplinary research enhanced by the stimulus of the participating disciplines. In the last few years, faculty members who have taught this course together have collaborated on research projects. We believe spending time together teaching this course provided an opportunity to discuss their research ideas. Finally, the course helps us to be more effective teachers by encouraging us to be flexible and willing to adjust to the capabilities of students without compromising the integrity of the subject matter.

The institution also gains because our graduates' performance is a direct reflection of how well we are preparing students for the business environment. Specifically, the course benefits the College of Business because it allows us to fulfill our mission by creating more business-ready graduates that are capable of creative thinking, advanced problem solving, and effective communication. The course also strengthens ties between the college and local organizations, thus creating additional opportunities for job offers for our students, grants, and scholarships. Several of our past clients have volunteered to be guest speakers. A few years ago, we completed two projects for "Restore," a subsidiary of Habitat for Humanity. The leaders at that organization were very impressed with our students' performance. Two are now actively engaged with our college. One is even offering a new course in social entrepreneurship in our graduate program. The donations generated from completed projects are used directly for student activities. The donation is deposited in a student fund managed by our college, and is used for education-related activities such as student clubs, field trips, and conference trips for students.

Finally, by receiving advice from bright and energetic business students, local organizations gain a valuable external perspective on their current problems and possible solutions to those problems. Although students are not experts, they are keen and curious, and tend to bring out issues that may not have been scrutinized before. It should be noted that at the end of several semesters, students were asked to consider applying for jobs at the project companies. Many local companies are aware of this program and use it not only to gain assistance in solving their problems but also as a means of gaining access to and working with potential employees. Participating organizations work closely with prospective future employees who are close to graduation, and now have students who have "worked"

with them and have firsthand knowledge of their processes and industry.

As mentioned before, similar courses have been offered at other institutions (Robinson et al., 2010). Although the fundamental reasons for offering such courses are the same, the structure and delivery tend to differ. For example, differences between our approach and the one implemented by Robinson et al. (2010) include (a) the competitive versus collaborative orientation of the consulting teams and (b) the role and involvement of faculty. The collaborative orientation allowed Robinson et al. (2010) to structure their class as a consulting firm where students are collocated with both functional and project teams and have some class members as senior leaders in the organization, whereas we did not see such a setting working in a competitive format. We see this as an opportunity for future educators to consider contextual factors in which a competitive versus pure collaborative orientation is most effective. Intragroup competition can be viewed as a negative factor for effective team performance. Frequently, the competition becomes so intense and the desire to win so strong that teams could resort to sabotage (Berg, 2010). However, intermediate intergroup competition can be an external motivator (Baer et al., 2010). Participants in our course, during the debriefing, stated that the exercise helped them learn how to cooperate within groups in the face of external competition and time deadlines.

Use of faculty panels is another element that builds upon the approach used by Robinson et al. (2010). They did not appear to have such a mechanism in their model. One contextual factor that may play a role is the concentration of for-profit versus non-profit clients. Maybe if classes were comprised predominantly of for-profit clients, competitive teams might be more appropriate. Is there something about the competitive nature of the groups that warrants the use of such panels? Exploring these questions could help educators to generate better course options for business students.

### Limitations

There are practical limitations in offering this type of course. One limitation is the accessibility of good projects. This course requires the presence of an active business community willing to open their doors to eager business students and become client companies. Furthermore, the project must be appropriate for the 14-week time constraints. We have overcome this limitation by negotiating multisection deals with clients, wherein the larger projects are broken down into smaller ones. The projects then are completed in semester-long phases. A second limitation is the availability of faculty members who are enthusiastic about teaching cross-disciplinary courses in teams and others who are willing to serve on the faculty panel. We have discussed this issue with our administration; however, we have had no specific incentives and we do not have course reduction. This course is more intensive than a regular capstone course. In one study, faculty innovators were unable to sustain their capstone innovation

beyond 2 years due to a lack of organizational support and substantial resistance from other faculty members (Hartenian et al., 2001). The initial success of our program has attracted several faculty members to be a part of the program. It is a challenge, and the few instructors who have offered this course have done it because it truly is enjoyable. Our college does have some rotation among the instructors. A third limitation is that it is limited to a small number of students. The class size is 15–20 participants. A college-wide application of such a course is not feasible. We do no more than two projects per class. Several qualified students who were not selected have requested multiple sections. But given our criteria for selecting projects and our geographical location, we cannot offer more than one section per semester.

A fourth limitation is related to comparative student performance across various capstone courses. It is difficult to do a direct comparison with traditional capstone courses for two reasons. First, this course is a special section, and students are selected to participate in the course. A direct comparison with other capstone courses would need to take into account that the students in this class have high GPAs and demonstrated academic success. Second, the pressure to perform in the course is greater, as there is direct accountability and scrutiny. The students are aware that there is a “real” consequence for their actions. It is a challenging course and students are aware of this; still, the number of student applications per semester has been rising steadily. We view this as positive feedback.

## CONCLUSION

As the strategy field becomes more complex, effectively blending concepts and practice is increasingly important. Although cases and simulations can be useful for traditional undergraduate students, such approaches alone are insufficient in bridging the gap between these students’ knowledge, experience, and preparation for the real world. We submit that such experiences (e.g., cases) provide a controlled environment where students may develop capabilities to solve problems, manage people, exhibit leadership, and resolve conflicts. However, cases lack certain nuances of real-life business, such as exposure to organizational power plays, the role of politics in resource allocation, multiple time horizons, organizational inertia related to change, and the impact of organizational culture on work processes. According to Hamilton, McFarland, and Mirchandani (2000), activities involving outside classroom work experience provide a better opportunity to learn firsthand about the interdisciplinary nature of business. This article described how an innovative approach to a capstone course can result in the development of a wider and more integrative perspective of business.

Use of interdisciplinary integration and experiential approaches to teaching capstone courses does not represent a novel pedagogy in business education today. Our student-consulting course, however, is unique because it not only allows

undergraduate students an opportunity to gain real-world experience (drawing on both collaboration and competition), but also increases the level of interaction students have with the clients and enhances the nature of the projects. A consulting assignment is beneficial for students because it exposes them to a workplace situation in which they must conduct themselves professionally in the presence of ambiguity, it helps to bring several management theories to life, and it provides an integral experience. As the business world changes and the economy continues to shift toward a model valuing the creation and use of information, the ability to tolerate change and act on ambiguous cues has become increasingly important for business decision makers. Previous research suggests that ambiguity tolerance is critical to performance in a number of business domains, from decision making (Dunham, 2003) and decision confidence (Ghosh & Ray, 1997), to the ability to cope with change and the choice of decision-making approach (Schwenk, 1982).

Another unique aspect of our course stems from its structure. As already noted, student teams can meet with members of the faculty panel in person to discuss specific issues that may arise during the project. This not only adds flexibility to the learning process and exposes students to many different perspectives, but also shifts the onus of learning to the students. Finally, the competitive nature of the course brings out the best in students. In our course, groups compete to provide solutions to the clients. So far, every client has accepted reports from both groups. In some cases, the clients have trouble deciding which group did better. Several studies show that adding an element of intergroup competition can inspire creativity, increase productivity within teams, and foster collaboration and better performance (e.g., Baer et al., 2010; Bornstein & Erev, 1994). By combining aspects of problem-based learning (PBL) and competition-based learning (CBL), such courses can allow students to gain practical experience while applying classroom knowledge to real business problems. It is our hope that more colleges incorporate similar courses as their capstone requirement.

## REFERENCES

- Agarwal, R., & Echambadi, M. (2002). The conditioning effect of time on firm survival: An industry life cycle approach. *Academy of Management Journal*, 45(5), 971–994.
- Bacon, D. R., Stewart, K. A., & Silver, W. S. (1999). Lessons from the best and worst team experiences: How a teacher can make the difference. *Journal of Management Education*, 23(5), 467–488.
- Baer, M., Leenders, R., Oldham, G., & Vadera A. (2010). Win or lose the battle for creativity: The power and perils of intergroup competition. *Academy of Management Journal*, 53(4), 827–845.
- Barrows, H. S. (1996). Problem-based learning in medicine and beyond: A brief overview. In L. Wilkerson and W. H. Gijselaers (Eds.), *Bringing problem-based learning to higher education: Theory and practice* (pp. 3–12). San Francisco, CA: Jossey-Bass.
- Berg, R. W. (2010). Competition and cooperation: The wisdom to know when. *Business Communication Quarterly*, 73, 176–189.
- Birch, W. (1986). Towards a model for problem-based learning. *Studies in Higher Education*, 11(1), 73–82.

- Bornstein, G., & Erev, I. (1994). The enhancing effect of intergroup competition on group performance. *International Journal of Conflict Management*, 5, 271–283.
- Boud, D., & Feletti, G. I. (1997). *The challenge of problem-based learning* (2nd ed). London, UK: Kogan Page.
- Choi, H., & Thompson, L. (2005). Old wine in a new bottle: Impact of membership change on group creativity. *Organizational Behavior and Human Decision Processes*, 98, 121–132.
- Conklin, T. (2013). Making it personal: The importance of student experience in creating autonomy-supportive classrooms for millennial learners. *Journal of Management Education*, 37(4), 499–538.
- Cosier, R. A., & Schwenk, C. R. (1990). Agreement and thinking alike: Ingredients for poor decisions. *Academy of Management Executive*, 4(1), 69–74.
- Dunham, K. (2003, April 8). Business-school contests give edge to job-hunting students. *The Wall Street Journal*, p. 10.
- Eitington, J. E. (2002). *The winning trainer* (4th ed.). Philadelphia, PA: Taylor & Francis.
- Ferris, W. P. (2002). Students as junior partners, professors as senior partners, the b-school as the firm: A new model for collegiate business education. *Academy of Management Learning & Education*, 1, 185–193.
- Fitzsimons, M. (2014). Engaging students' learning through active learning. *Irish Journal of Academic Practice*, 3(1), article 13.
- Fowler, K. L., & Scott, D. M. (1996). Experiential learning in the capstone strategic management course: Collaborative problem solving the student live case, and modeling. *Journal of Business and Management*, 3, 103–120.
- Ghosh, D., & Ray, M. R. (1997). Risk, ambiguity tolerance, and decision choice: Some additional evidence. *Decision Sciences*, 28, 81–104.
- Gijselaers, W. H. (1996). Connecting problem-based practices with educational theory. In L. Wilkerson and W. H. Gijselaers (Eds.), *Bringing problem-based learning to higher education: Theory and practice* (pp. 13–21). San Francisco, CA: Jossey-Bass.
- Gilinsky, A., Jr., & Robison, R. (2008). A proposed design for the business capstone course with emphasis on improving students' information competency. *Journal of Management Education*, 32(4), 400–419.
- Hamilton, D., McFarland, D., & Mirchandani, D. (2000). A decision model for integration across the business curriculum in the 21st century. *Journal of Management Education*, 24(1), 102–126.
- Hartenian, L., Schellenger, M., & Frederickson, P. (2001). Creation and assessment of an integrated business course: One college's experience. *Journal of Education for Business*, 66(3), 149–159.
- Hemmasi, M., & Graf, L. A. (1992). Managerial skills acquisition: A case for using business policy simulations. *Simulation & Gaming*, 23(3), 298–310.
- Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2014). *Strategic management: Competitiveness and globalization* (11th ed.). Stamford, CT: Cengage Learning.
- Hunt, J. H., & Weintraub, J. R. (2004). Learning developmental coaching. *Journal of Management Education*, 28, 39–61.
- Joham, C. & Clarke, M. (2012). Teaching critical management skills: The role of problem-based learning. *Teaching in Higher Education*, 17(1), 75–88.
- Kayes, D. C. (2002). Experiential learning and its critics: Preserving the role of experience in management learning and education. *Academy of Management Learning & Education*, 1, 137–149.
- Keys, J. B., & Wolfe, J. (1990). The role of management games and simulations in education and research. *Journal of Management*, 16, 300–336.
- Kirchmeyer, C., & Cohen, A. (1992). Multicultural groups: Their performance and reactions with constructive conflict. *Group and Organizational Management*, 17(2), 153–170.
- Kliegl, J., & Weaver, K. (2014). Teaching teamwork through co-teaching in the business classroom. *Business and Professional Communication Quarterly*, 77(2), 204–216.
- McKeachie, W. J., & Svinicki M. (2014). *Teaching tips: Strategies, research, and theory for college and university teachers* (14th ed.). Boston, MA: Houghton Mifflin.
- Mierson, S., & Friert, K. (2004). Problem-based learning. *American Society for Training & Development*, 58(10), 15–17.
- Miller, J. S. (2004). Problem-based learning in organizational behavior class: Solving students' real problems. *Journal of Management Education*, 28, 578–590.
- Mulvey, P. M., & Ribbens, B. A. (1999). The effects of intergroup competition and assigned group goals on group efficacy and group effectiveness. *Small Group Research*, 30, 651–677.
- Nargundkar, S., Samaddar, S., & Mukhopadhyay S. (2014). A guided problem-based learning (PBL) approach: Impact on critical thinking. *Decision Sciences Journal of Innovative Education*, 12(2), 91–108.
- Paglis, L. (2013). A review of managerial skills training in the classroom. *Journal of Management Education*, 37(4), 472–498.
- Rhodes, C., & Garrick, J. (2003). Project-based learning and the limits of corporate knowledge. *Journal of Management Education*, 27, 447–471.
- Riley, R., Cadotte, E., Bonney, L., & MacGuire, C. (2013). Using a business simulation to enhance accounting education. *Issues in Accounting Education*, 28(4), 801–822.
- Robinson, D., Sherwood, A., & DePaolo, C. (2010). Service-learning by doing: How a student-run consulting company finds relevance and purpose in a business strategy capstone course. *Journal of Management Education*, 34(1), 88.
- Saiia, D., Macy, G., & Boyd, M. (2008). Meaningful learning in management: recombining strands of knowledge DNA through engaged dialogue and generative conflict. *Organization Management Journal*, 5, 167–179.
- Schwenk, C. R. (1982). Effects of inquiry methods and ambiguity tolerance on prediction performance. *Decision Sciences*, 13, 207–221.
- Solomon, G. (2003). Project-based learning: A primer. *Technology and Learning*, 23(6), 20–26.
- Sorenson, J. E., & Wittmer, D. P. (1996). Stage 2: Designing team-taught transdisciplinary courses—Where do we begin? *Journal of Management Education*, 20(4), 422–434.
- Stephen, J., Parente, D. H., & Brown, R. C. (2002). Seeing the forest and the trees: Balancing functional and integrative knowledge using large-scale simulations in capstone business strategy classes. *Journal of Management Education*, 26, 164–193.
- Stinson, J. E., & Milter, R. G. (1996). Problem-based learning in business education: Curriculum design and implementation issues. *New Directions for Teaching and Learning*, 68(Winter), 33–42.
- Thompson, T. A., & Purdy, J. M. (2009). When a good idea isn't good enough: Curricular innovation as a political process. *Academy of Management Learning & Education*, 8(2), 188–207.
- Van Vugt, M., De Cremer, D., & Janssen, D. (2007). Gender differences in cooperation and competition: The male warrior hypothesis. *Psychological Science*, 18, 19–23.
- Watkins, T. L. (1996). Stage 1: Creating a new MBA core with team teaching. *Journal of Management Education*, 20(4), 411–421.
- Wolfe, J. A., & Keys, B. (1997). *Business simulations, games, and experiential learning in inter-national business education*. New York, NY: International Business Press.
- Young, M. B., & Kram, K. E. (1996). Repairing the disconnects in faculty teaching teams. *Journal of Management Education*, 20(4), 500–515.

## APPENDIX: BUS 486 (FALL 2012) SYLLABUS

INSTRUCTORS: XXX and XXX

**REQUIRED MATERIAL:** There is a set of PowerPoint presentations and Web links uploaded to the course website.

This will depend on the projects and be added to D2L or handed out in class.

**OPTIONAL MATERIAL:** Additional readings based on project needs.

### COURSE DESCRIPTION:

*This course is intended to be a consulting experience that provides students the opportunity to apply the concepts and techniques they have learned throughout the BBA program. The need to effectively integrate material from a variety of courses will be critical to success in this course.*

This is a project course intended to provide students with a hands-on experience with management consulting. Our classes do a good job of teaching concepts and principles that continue to be useful in the business world. However, students also need practical on-the-job skills and training to get the job that allows them to demonstrate their conceptual understanding. For most students, that comes through full- or part-time work, internships, class projects, or other similar practical exposure. BUS 486 provides an additional avenue.

#### PREREQUISITES:

Students who did not take all of the courses (for senior standing) can only register for this course with the consent of the professors. This is a limited enrollment course. Students will be admitted to the course to the extent that we can identify appropriate projects for students to work on. Students must apply to the course by completing an application for the course. The student who will get the most out of this course has the following characteristics:

- Has an analytical mind, and a strong quantitative background, and is very comfortable with computers;
- Is a hard worker, can perform under pressure, and is comfortable in a team setting;
- Can deal with uncertainty and ambiguity, is creative and resourceful, and can work with minimal instruction.

#### COURSE OBJECTIVES:

The primary objective of this course is to introduce students to the management consulting sector and to improve their analytical problem solving, team work, communication, and presentation skills.

#### COURSE FORMAT:

The goal of the course is to simulate a management consulting experience as closely as possible. To this end, students will:

- Form groups (or “companies”).
- Listen to clients discussing problems.
- Prepare proposals for the project(s) (milestones and deliverables).
- Sign a contract with a client.
- Work with the client on the problem all semester.
- Present a progress report to the class and the client (not necessarily at the same time).
- Present a final report (written and oral) to the class and the client (not necessarily at the same time).

There will be weekly class meetings. *The first few sessions of the course will cover many of the tools used by consultants at the various stages of a project to devise solutions and avoid pitfalls during the engagement.* The guest speakers will be chosen for their consulting knowledge and experience.

The project course is operated on a team basis. Students will observe the environments, practices, and challenges of actual

entrepreneurs. They will serve as members of a management consulting team responsible for identification of and solutions to problems facing small local firms. Management consulting projects are conducted in teams. **To compose the teams, we will require a copy of your resumé.**

Groups will meet with the client to formulate the project and prepare a proposal. Groups meet with faculty on a regular basis, preceded by progress reports (details to be discussed in class). A final report is due at the conclusion of the project.

The professors will act as resource persons and supervisors, but not as project managers. Additionally, there will be a faculty panel (from various business disciplines) sufficiently involved in the project to contribute to the student’s educational experience, and to provide meaningful feedback and assessment to the students. Groups meet at least once a week with the professors during the term. *(We will not divide the projects up between the professors. Each group should meet with both professors—not necessarily at the same time/place.)* It is the students’ responsibility to arrange additional meetings with the professors whenever they feel the need.

The load for each student will depend on several factors: student’s background, group characteristics, depth and breadth of the project. Careful planning in the first two weeks is crucial for success.

#### CONSULTING PROJECT:

The professors will recruit the projects from local companies and organizations. The scope and depth should challenge students in their academic studies and provide the opportunity for hands-on practice. Students will prepare an engagement letter that will **include** scope of work, work products, and time frame **(to be completed in the first 2 weeks of class)**.

Examples of appropriate projects include (but are not limited to) a combination that consists of 3–4 of the following areas (at a minimum):

Marketing/Sales, Strategic Planning, Accounting Systems/Business Ratio comparisons/Break-Even Analysis, Financial Planning and Control Growth of Company, Inventory Control, Operations, Manufacturing, Information Technology, Human Resources Planning.

At the conclusion of the project, it is the responsibility of the student to prepare a final report for the project sponsor, and the faculty instructor. This report usually is a major component in the faculty instructor’s evaluation and assessment of the student’s project. The final report should include:

Executive Summary, Introduction, Objectives of the Consulting Engagement, Description & Background of Company, Various analyses (e.g., Environment/Industry Analysis, Competitive Analysis, Financial Assessment, SWOT analysis), Conclusions, Recommendations (both strategic and operational), Implementation of recommendations, and Relevant appendices (financial reports, business ratios; comparisons such as past/present or peer or benchmarks). As a general rule, students **MUST** use a minimum of 15 references (articles and other sources) for the projects.

**USE OF COURSE SITE:**

Groups will use the group discussion area in the course site for project related discussion. They will provide updates here. The group discussion helps other group members to access information collected by the groups and helps us keep track of how well the project is moving. This WILL be used as input during your grades.

**GRADING**

There are no homework assignments, or quizzes. Student performance will be measured solely on the content and the presentation of the project.

Attendance and in-class behavior	50 points
Initial proposal and engagement letter	25 points
Weekly discussion updates	25 points
Progress report presentation	50 points
Final presentation	75 points
Written final report	100 points
Client evaluation	100 points
Peer evaluation	100 points
Final exam	100 points
<b>Total:</b>	<b>625 points</b>

The team consulting project will be evaluated based on data collection and analysis and the completeness and professionalism of the written report and class presentation.

Students should check the website regularly for announcements regarding class meetings and guest speakers.

**TENTATIVE SCHEDULE OF ACTIVITIES**

(please note that this schedule may change to accommodate clients' requirements)

**Week 1** Introduction; Lecture on Basics of Consulting, Strategic Management (Mission, Vision, Process).

**MEET WITH CLIENT BEFORE WEEK 2** (Firms describe projects; get information on resources, timeline, meeting protocol; provide contact information.)

**Week 2** Discuss meeting with client (first impressions; document all details and concerns).

Lecture on client relationship skills; marketing services; engagement letters; levels of strategy.

**Week 3 Contracts are signed.**

Project work begins; lecture on tools and techniques (external analysis).

**Week 4** Project related work; lecture on tools and techniques (internal analysis).

**Week 5** Presentation skills. Project-related work. Lecture on tools and techniques. (Additional speakers based on student requests from faculty panel.)

**Weeks 6** Project-related work.

**Week 7 Interim presentation.**

Present first round proposals to client and prepare report of meeting.

Teams informally report client reactions and brainstorm implementations.

**Week 8** Project-related work.

Lecture on how to write a proposal/final report; lecture on implementation.

**Weeks 9 and 10** Project-related work. Lecture on implementation. (Additional speakers based on student requests from faculty panel.)

**Week 11** Project-related work.

**Week 12** Final deliverables presented to professors.

Prepare report feedback on formal implementation proposals.

**Week 13 Final deliverables presented to professors and clients.**

**Week 14** Wrap up and debriefing.

**ABOUT THE AUTHORS**

**Ashay Desai** is an associate professor of management in the College of Business at the University of Wisconsin–Oshkosh. He received his PhD from the University of Memphis. His current research interests include corporate governance and declining firms, competitiveness, outsourcing, and turnaround strategies. He can be reached at [desai@uwosh.edu](mailto:desai@uwosh.edu).

**Michael Tippins** earned his PhD from the University of Nebraska–Lincoln. His current research and consulting interests focus on maintaining customer loyalty, gaining voice of customer insights, and market positioning. He has consulted with more than 100 firms and continues to be heavily involved in the development of new research tools designed to help companies gain insights about their customers. He is currently the chairperson of the Department of Marketing and Supply Chain at the University of Wisconsin–Oshkosh and teaches in the undergraduate, graduate, and executive MBA programs. He can be reached at [tippins@uwosh.edu](mailto:tippins@uwosh.edu).

**J. B. (Ben) Arbaugh** is a distinguished professor of management at the University of Wisconsin–Oshkosh. He received his PhD from the Ohio State University. He is a former editor of *Academy of Management Learning & Education* and a past chair of the Academy of Management's Management Education and Development Division. His current research interests are in online management education, graduate management education, the use of predictive analytics in higher education, bibliometric studies of management education research, and the impact of management education research on management education practice. He can be reached at [arbaugh@uwosh.edu](mailto:arbaugh@uwosh.edu).