Board of Regents, State of Iowa

REQUEST TO IMPLEMENT A NEW BACCALAUREATE, MASTERS, DOCTORAL OR FIRST PROFESSIONAL DEGREE PROGRAM

THE PURPOSE OF ACADEMIC PROGRAM PLANNING: Planning a new academic degree program provides an opportunity for a Regent University to demonstrate need and demand as well as the university's ability to offer a quality program that is not unnecessarily duplicative of other similar programs offered by colleges and universities in Iowa.

Institution: **Iowa State University**

Departments involved: Management, Marketing, and Logistics, Operations, and Management Information Systems

CIP Discipline Specialty Title: **Business Administration and Management, General**

CIP Discipline Specialty Number (six digits): **52.0201**

Level: B M **D** FP

Title of Proposed Program: **Business and Technology with Areas of Specialization: Customer Relationship Management, Management of Information Technology, and Supply Chain Management**

Degree Abbreviation (e.g., Minor, B.S., B.A., M.A.): **Ph.D.**

Approximate date to establish degree: Month **August** Year **2008**

Contact person(s): (name, telephone, and e-mail)

Michael R. Crum; 294-8105; mcrum@iastate.edu
Sridhar Ramaswami; 294-5341; sramaswa@iastate.edu

Please provide the following information (use additional pages as needed).

1. Describe the proposed new degree program, including the following:

   a. A brief description of the program and a statement of objectives including the student learning outcomes and how the learning outcomes will be assessed;

The proposed Business and Technology Ph.D. program is designed as a full-time residential program. The main learning objectives of the proposed program will be to impart knowledge on the alignment of business strategy and technology and the use of technology to improve strategic management decisions and to help students develop the necessary skills to conduct scholarly research. The curriculum will provide students with the theoretical foundation and the research tools needed for them to contribute to the academic discipline through the development, integration, and dissemination of knowledge. The program will prepare individuals for academic careers in research, teaching, and public service at institutions of higher learning in the United States and other countries.

The proposed curriculum requires 74 credits of coursework, including a minimum of 18 credits of graduate coursework that must be completed before admission to the Ph.D. program (these are discussed later). The proposed Ph.D. program is designed around five inter-related areas – core, specialization, research methodology and statistics, minor, and the dissertation. The program will have three areas of specialization: Customer Relationship Management, Supply Chain Management, and Management of Information Technology. Students must complete at least one area of specialization. The technology focus and areas of specialization were chosen based upon the strengths and mission of the University and College of Business. Additionally, the focus on the selected three areas of specialization differentiates our program from that offered by our sister Regents university, the University of Iowa. Definitions and descriptions of the core and specializations are provided in Appendix 1.

The proposed curriculum includes:

Course Modules	**Courses**	**Hours**
Required Graduate Work for Admission		18
Business and Technology Core	3	9
Area of Specialization	6	14
Minor Area	3	9
Research Methods	4	12
Dissertation		12
TOTAL	**16**	**74**

The business and technology core courses will be the foundation for all three areas of specialization. The core courses will focus on business processes and the role of technology in managing such processes at the intra-firm and inter-firm levels. The seminars within each area of specialization will cover the theory, research methodology, and current topics and issues associated with that field. The research methods courses will allow students to develop an appropriate set of methodological skills needed to conduct research in the student's area of study. Students will be encouraged and advised to identify a plan of study that will be best suited to his or her research interests. The minor area will provide the ability for students to select courses that will assist them in broadening their degree to areas related to their research or teaching interests. Courses can be selected from other College of Business programs or from disciplines outside of the College. The dissertation will require that a student propose a dissertation project, complete the project, and defend the results (minimum 12 credits).

Student outcomes will be assessed in multiple ways. First, students will be required to complete a preliminary exam (oral and written) that will test their knowledge of major, minor and supporting subject areas. Second, students will be required to defend successfully a dissertation proposal before being admitted to candidacy for the Ph.D. degree. Third, upon completion of the dissertation, students will be required to successfully complete an oral examination in defense of their dissertation. Finally, a fourth means of assessing student outcomes will be the requirement that sometime during their program of study students will

be required to submit two research papers to refereed journals in their field of choice -- one paper with a faculty mentor and the second based on independent work (with approval from the major professor).

b. The relationship of the proposed new program to the institutional mission and how the program fits into the institution's, college's, and department/program's strategic plan;

At the present time the College of Business (COB) offers high quality undergraduate and master level programs, and has a number of nationally recognized research scholars and a strong research reputation in selected fields. The COB is at a juncture in its evolution when a Ph.D. program is both necessary and appropriate. It is necessary to fulfill the College's strategic goals and to enable the College to contribute fully to the University's mission as a Research Extensive and land-grant institution. It is appropriate because the College has the quality of faculty and facilities required to establish and sustain an excellent doctoral program.

A key objective of the proposed program is to contribute to the research mission and reputation of Iowa State University. The University 2005-2010 Strategic Plan establishes the goal of increasing the number and elevating the overall quality of graduate and professional students. It also asserts the intent to enhance areas of excellence in the arts, humanities, and social sciences that build on and complement the university's unique strengths. The proposed Ph.D. in Business and Technology is consistent with these strategic priorities as it will build on the University's strength in science and technology.

The COB Strategic Plan for 2000-2005 provides the College's Vision which includes "to be recognized among the top ten Colleges of Business in land-grant universities in the United States." According to the 2004-2005 U.S. News and World Report, the COB is 19th among land grant-universities. All but one of the top 18 colleges offers a Ph.D. program (please see Appendix 2). The COB is unlikely to receive a rank that is significantly better than its current position without the presence of a quality Ph.D. program.

The COB Strategic Plan for 2005-2010 delineates six college priorities. The proposed Ph.D. program would contribute significantly to achieving the following three priorities:

- **Increase commitment to graduate education: Increased emphasis on graduate programs will help the College prepare professionals and educators while enhancing its visibility and reputation.** Establishing a focused Ph.D. program within the College is explicitly stated within the strategic plan as an action to achieve this priority.
- **Enhance the role of research: The role of research is critical to the visibility of the College and its alignment with the status of ISU as a member of the Association of American Universities.** Doctoral education is an expectation at a research university, particularly in disciplines for which the terminal degree is the Ph.D. At present, the COB is one of only two colleges at ISU that does not offer a Ph.D. program. Ph.D. students help leverage faculty research productivity, and enhance the ability to pursue externally funded research opportunities.
- **Enhance the College's external image: Improve the visibility and reputation of the College, nationally, regionally, and within the State of Iowa.** As noted earlier, the

existence of a Ph.D. program appears to be an important factor in external rankings of academic programs.

Finally, the opportunity to interact with and mentor Ph.D. students is very important in the recruitment and retention of faculty. Not offering a doctoral program puts the COB at a competitive disadvantage relative to peer institutions. Given the projected nationwide shortage of faculty (to be discussed later), this will become even more important in the future.

c. The relationship of the proposed new program to other existing programs at the institution; describe how the proposed program will enhance other programs at the university.

The proposed Ph.D. program is expected to have a favorable impact on existing COB programs. The current MBA programs will benefit as qualified and interested MBA students will be provided choice of specialization in the three areas covered by the Ph.D. program and greater choice of courses within each specialization. This will have a positive impact on the visibility and ranking of our MBA programs as very few MBA programs around the country offer specialization in areas such as customer management or supply chain management. To the extent that the Ph.D. program increases the visibility and ranking of the MBA program, it will also enable the COB to attract better quality masters students.

We expect the impact on the undergraduate program also to be favorable for two reasons. First, some of the undergraduate classes offered today are large with more than 300 students. The Ph.D. proposal envisions (a) formation of multiple smaller-sized recitation classes for these large sections, and (b) use of Ph.D. students to manage the smaller classes and facilitate one-to-one dialogue with students. It is expected that the student experience will be enriched through this process.

Second, the proposal calls for providing teaching experience to Ph.D. students. According to the proposal, Ph.D. students will teach one course each semester at the undergraduate level for four of the eight semesters they are in the program. The assumption is that completion of Ph.D. will typically take a student four years. To ensure quality teaching, the proposal requires students to complete the requisite training (through the Preparing Future Faculty and Center for Excellence in Learning and Teaching programs that are offered by the university) and work under the supervision of a faculty mentor. Taking these steps will ensure that high teaching standards are maintained in the undergraduate program.

A key point to note is that the introduction of a Ph.D. degree in the College of Business (a) will not require reduction in the number of course offerings in the undergraduate program, and (b) will not require reduction in the number of students that are currently served in the undergraduate and MBA programs.

Further, the proposed program will likely be attractive to students from several allied disciplines on campus for either their program of study or for a secondary or minor area. For example, business Ph.D. programs frequently attract students from units such as computer

science, computer engineering, economics, electrical engineering, industrial engineering, psychology, sociology, and others.

Finally, COB faculty members are frequently sought by colleagues across campus to collaborate on sponsored interdisciplinary research projects. Business doctoral student research assistants are vital to our faculty's ability to partner on these opportunities and to strengthen research and outreach linkages with various centers and institutes such as Center for Advanced Technology Development, Center for Transportation Research and Education, Institute for Food Safety and Security, Institute for Physical Research and Technology, and Virtual Reality Applications Center.

d. The relationship of the proposed new program to existing programs at other colleges and universities in Iowa, including how the proposed program is different or has a different emphasis than the existing programs; and

The University of Iowa (SUI) offers the only business Ph.D. program in the state. SUI offers three majors that have some similarity to the areas of specialization in the proposed Business and Technology Ph.D. program, but the emphasis of each is quite different from those of our proposed specializations. (Appendix 1 provides a detailed description of the areas of specialization in our proposed program.)

The Management Science Department at SUI offers majors in MIS and Operations that have some common elements with our proposed Management of Information Technology and Supply Chain Management tracks, respectively. SUI's MIS "is concerned with the design, implementation and management of computer based systems so as to meet the information processing needs of organizations" and produces research focused on "building and analyzing mathematical models of MIS decision problems." Our proposed Management of Information Technology specialization has a much stronger emphasis on technology strategy and the behavioral aspects of technology adoption and use (both at the organizational and individual level). SUI's Operations Ph.D. emphasizes "the planning, organizing, and control of manufacturing and service activities." According to correspondence received from SUI, their program does have more logistics in it than is apparent from their website and literature. However, their focus tends to be more on modeling and applied operations research methods whereas our proposed Supply Chain Management specialization (which also includes operations management and logistics) will focus more on strategy and the inter-organizational integration of supply chain processes. Also, our program will have more coursework on certain logistics components (i.e., purchasing and transportation).

Finally, SUI's Marketing Department offers a more traditional degree in Marketing that "is flexible and adaptable to individual student interests and circumstances." The area of study includes courses in Managerial Applications, Multivariate Statistics, and Marketing Seminars with the seminars covering a wide range of marketing subject matter. The SUI curriculum, however, does not include any specific courses or seminars in Customer Relationship Management.

e. Special features or conditions that make the institution a desirable, unique, or appropriate place to initiate such a degree program.

ISU is an appropriate place for the proposed Ph.D. program because, as noted earlier, the program builds on and complements the unique strengths of the University, and it is differentiated from the business Ph.D. program at the University of Iowa. The proposed Ph.D. program is a good fit for ISU, and, as discussed below, the COB has the necessary faculty quality to establish an excellent Ph.D. program that will enhance the national stature of both the COB and ISU.

f. Does the proposing institution have personnel, facilities, and equipment adequate to establish and maintain a high quality program?

The COB has an excellent research faculty that was educated at some of the top business schools in the country (please see Appendix 3). A number of COB faculty members are already involved with doctoral education on campus. For instance, several faculty serve or have served on dissertation committees across campus. The Management Information Systems (MIS) faculty is active in the interdisciplinary Ph.D. program in Human Computer Interaction. Additionally, both the Marketing and Supply Chain Management programs are nationally ranked on the basis of research productivity in their disciplines' top academic journals. For example, Iowa State was recently identified as one of three university "logistics thought centers" based on faculty research publication in the top four logistics academic journals,[a] and our faculty ranked third among North American universities with respect to the number of articles published in the top two journals in the field between 1978 and 1999.[b] Our marketing faculty were recently ranked 25th globally based on the number of research publications in the top three academic journals in the field. Notably, it was ranked second among institutions without a doctoral program.[c] Finally, COB faculty members currently serve as the Editors for six academic research journals. Thus, there is strong evidence that COB has the necessary faculty quality.

The COB is housed in the Gerdin Business Building, the newest academic building on campus. Gerdin Business Building has state-of-the-art research and instructional technology, and adequate space to accommodate the proposed program. The building will be an asset when it comes to recruiting prospective students.

[a] C. Autry and S. Griffis (2005). "A Social Anthropology of Logistics Research: Exploring Productivity and Collaboration in an Emerging Science," *Transportation Journal*, Vol. 44, No. 4, pp. 27-43.
[b] J. Hanna and M. LaTour (2002). "Building bridges through logistics publication: Author and institution productivity in business' most applied science," *American Business Review*, Vol. 20, No. 1, pp. 43-49.
[c] A. Helm, D. Hunt, and M. Houston (2003). "Citation Frequency of Research Published in the Top Three Marketing Journals: Ranking the Impact of Articles, Scholars, and Institutions," *American Marketing Association Educators' Proceedings*, pp. 198-208.

g. How does student demand for the proposed program justify its development?

While several studies indicate strong demand for graduates from business Ph.D. programs (please see question #2 on next page), to our knowledge there are no empirical studies estimating the demand for such programs from the student perspective. Of course, the strong job market that exists for graduates of business Ph.D. programs should help in the recruiting of prospective students for our program. Additionally, our strategy of offering unique specializations that also prepare graduates to teach in more traditional programs should be attractive to prospective students. We have some anecdotal evidence of this, as we receive numerous inquiries from individuals who are interested in pursuing a Ph.D. in business at Iowa State, particularly in supply chain management, management of customer relationships, and management of information technology.

One key motivation behind the design of the proposed program is that the industry has seen the benefits of re-organizing business activities around business processes such as customer relationships and the supply chain. However, the academic community has lagged somewhat in responding to this business change and business schools have continued to offer programs that are targeted more at the functional level. As noted by an external referee to this proposal:

> "…the management field is likely to shift its attention from disciplines to problems. Developing programs and skills that help tackle important management problems is likely to be the arena for future interest and growth opportunities. .. Effective and impactful contributions for tackling knotty management problems demand interdisciplinary training and skills. .. The proposed program is competitively situated to take advantage of these emerging opportunities."

Given the changes that are taking place in business thought, we strongly believe that students will find the proposed program attractive. The trend line suggests that perceptions of attractiveness will only improve in the future.

However, as is true of all graduate programs in business, a key challenge of student recruitment is competition from the private sector which is also experiencing a growing demand for business school graduates. We acknowledge that an aggressive recruiting effort will be necessary to identify and attract high quality prospective students. Our proposed budget considers the costs of such a recruiting effort, including a competitive package of support for the Ph.D. students once they are admitted.

2. Describe the state and/or national workforce need and/or demand for graduates of the proposed program currently and in the near future (provide documentation about the sources of data used to estimate need and demand.)

There is a widening gap between the demand and supply for business faculty. Studies conducted by AACSB, the accreditation organization for colleges of business, have not only predicted a large shortfall in qualified faculty to teach business courses, but also have expressed concern that this shortfall may result in erosion of quality of the discipline itself in the long run. According to AACSB, there will be a shortage of close to 1800 faculty positions by the year 2008. Market studies and expert opinion concerning future demand for faculty in the three proposed Ph.D. specializations are consistent with this general trend for business faculty. Therefore, it is our opinion that placement of students will not pose a problem because of these market trends. (Please see Appendix 4 for summaries of these studies.)

3. List all other public and private institutions of higher education in Iowa currently operating programs similar to the proposed new degree program. (For comparison purposes, use a broad definitional framework, e.g., such identification should not be limited to programs with the same title, the same degree designation, having the same curriculum emphasis, or purporting to meet exactly the same needs as the proposed program.)

If the same or similar program exists at another public or private institution of higher education in Iowa, respond to the following questions:

a. Could the other institution reasonably accommodate the need for the new program through expansion? Through collaboration?

As noted in 1.d. above, the University of Iowa offers the only business Ph.D. program in the state at this time. Though SUI could conceivably accommodate the number of students we anticipate admitting to our program, the current focus of its program is different from that of our proposed program.

b. With what representatives of these programs has there been consultation in developing the program proposal? Provide a summary of the response of each institution consulted.

The response from SUI is provided in Appendix 6.

c. Has the possibility of an inter-institutional program or other cooperative effort been explored? What are the results of this study? (Consider not only the possibility of a formally established inter-institutional program, but also how special resources at other institutions might be used on a cooperative basis in implementing the proposed program solely at the requesting institution.)

We have not explored the possibility of an inter-institutional program. To our knowledge these are very uncommon at the doctoral level.

4. Estimate the number of majors and non-majors students that are projected to be enrolled in the program during the first seven years of the program.

a. Undergraduate

Undergraduate	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
Majors							
Non-majors							

b. Graduate

Graduate	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
Majors[a]	4	8	12	16	16	16	16
Non-majors	3	3	4	4	6	6	6

[a] We plan to be highly selective and admit approximately four students per year, reaching a "steady state" of 16 total enrollment in year 4. Once we have established our reputation as a quality program, we expect to increase the number of students.

c. What are the anticipated sources of these students?

We will actively recruit prospective majors nationally and internationally from high quality business academic programs. Additionally, we will also actively recruit majors and minors (i.e., non-majors) from current ISU students in both business and allied disciplines (e.g., agricultural economics, computer engineering, computer science, economics, industrial engineering, psychology, sociology, statistics, etc.).

5. If there are plans to offer the program away from the campus, briefly describe these plans, including potential sites and possible methods of delivery instruction.

Not applicable.

6. Has the proposed program been reviewed and approved by the appropriate campus committees and authorities? List them:

The COB Curriculum Committee recommended approval of the proposal, and the COB faculty voted unanimously to approve the proposal at its May 2006 meeting.

7. List date the program proposal was submitted to the Iowa Coordinating Council for Post High School Education (ICCPHSE) and the results of listserv review. (THIS WILL BE FILLED IN BY THE PROVOST OFFICE.)

8. Will the proposed program apply for accreditation? When?

Yes. The COB will seek accreditation by the globally recognized agency for business school accreditation, AACSB International (The Association to Advance Collegiate Schools of Business). This is expected to take place during the next Maintenance of Business Accreditation Review in 2009-2010.

9. Will articulation agreements be developed for the proposed program? With whom?

No.

10. Describe the faculty, facilities, and equipment that will be required for the proposed program.

COB and the University currently have the necessary facilities and equipment. The response to 1.f. above summarizes the existing personnel and infrastructure. A minimum of three new faculty lines would be necessary to establish the proposed program.

11. From where will the financial resources for the proposed program come (list all that apply, e.g., department reallocation, college reallocation, grants, new to the university)?

Our cost estimates show that approximately $1.14 million per year of additional funding will be needed to offer the program and accommodate 16 Ph.D. students. This estimate includes the costs associated with new faculty and staff lines, graduate assistantships, graduate tuition support, research funding, and student recruitment. It also includes cost offsets such as using Ph.D. students as teaching assistants. The sources of the additional funding will include new resources from the university (approximately 25% of total), plus college and department reallocations and other external sources, though we have not yet confirmed the exact funding amounts from these latter sources. It is important to note that the top priorities of the COB's current private fundraising campaign are faculty development, student development, and program development – with an emphasis on the Ph.D. program. The Dean is fully committed to allocating the necessary resources for a top quality Ph.D. program (please see his memo in Appendix 5). He has the support of the Dean's Advisory Council (comprised of industry leaders) in making the Ph.D. program a top priority for the college.

SOURCES	**TOTAL AMOUNT**
Multiple sources – university, college, departments, grants	$1.14 million/year

12. Estimate the total costs/total new costs (incremental increases each year in expenditures) that will be necessary for the next seven years as a result of the new program:

	TOTAL COSTS[a]	**TOTAL NEW COSTS[b]**
Year 1 (2008-2009)	$0.858 million	$0.858 million
Year 2 (2009-2010)	$0.953 million	$0.095 million
Year 3 (2010-2011)	$1.049 million	$0.096 million
Year 4 (2011-2012)	$1.140 million	$0.091 million
Year 5 (2012-2013)	$1.140 million	$0
Year 6 (2013-2014)	$1.140 million	$0
Year 7 (2014-2015)	$1.140 million	$0

[a] Expected total annual costs associated with the proposed Ph.D. program.
[b] Expected incremental cost increase over previous year.

Supplemental materials
(to be used at Iowa State University in the review of the proposal):

13. Program requirements, including:
    a. prerequisites for prospective students;
    b. language requirements;
    c. courses and seminars presently available for credit toward the program;
    d. proposed new courses or modifications of existing courses;
    e. thesis and non-thesis options in master's programs;
    f. implications for related areas within the university;
    g. admissions standards for graduate programs

a. Prerequisites for prospective students

The Ph.D. program is likely to be small and highly selective. Admission to the program is competitive and based on academic merit, research capabilities, and the match of research interests between the applicant and the faculty in the indicated area of specialization.

The applicant to the Ph.D. program must have earned an acceptable bachelor's and/or master's degree from an accredited institution whose requirements for the particular degree are equivalent to those of Iowa State University. The completion of a Master's degree is not a requirement for entrance to the program or for granting of the Ph.D. However, students with a Master's degree (particularly in business) may complete the program earlier than students entering with Bachelor's degrees.

All doctoral students must have an appropriate business background for their particular area of study. Students are also expected to have a base knowledge in applied business statistics (3 Cr). Additionally, students without an MBA degree (even if they hold an undergraduate degree in business) will be required to complete the following **graduate** foundation courses:

- Financial and managerial accounting (min. 2 Cr)
- Corporate finance (min. 2 Cr)
- Strategic management (min. 2 Cr)
- Management information systems (min. 2 Cr)
- Marketing (min. 2 Cr)
- Supply chain management (min. 2 Cr)
- Economics – micro and macro (min. 6 Cr)

To complete all graduate foundation courses at Iowa State, students will typically require two semesters. It is desirable to take these courses during the spring and summer sessions or summer and fall sessions because of the two-term system at the University.

b. Language requirements
None

c/d. Presently available and proposed new courses and seminars

The following table provides information on the different courses proposed for the Ph.D. program, specifically identifying if each one is existing or new. It also comments on upgrades needed for each existing course.

Program Component	Course	New/ Existing	Comments
Business and Technology Core	Philosophy of Science	New	
	Organizational Theory	New	
	Strategic Management of Technology & Innovation	New	Upgrade MGMT 568
Supply Chain Management Specialization	Theoretical Foundations of SCM	New	
	Seminar on Supply Chain Strategy	New	
	Seminar on Purchasing & Supply Management	New	
	Management of Inter-Organizational Relationships	New	
	Seminar on Logistics Management	New	
	Seminar on Operations Management	New	
	Research Practicum I & II	New	
Management of Information Technology Specialization	Seminar on IS Behavioral Research	New	
	Current Issues in IS Research	New	
	IT Strategy and Structure	New	
	Organizational & Social Implications of Human Computer Interaction	MIS 655	
	Collaboration, Knowledge, and Intelligence in Organizations	New	
	Research Practicum I & II	New	
Customer Relationship Management Specialization	Seminar on Consumer Behavior	New	Upgrade MKT 547
	Seminar on Organizational Behavior	New	Upgrade MGMT507
	Customer Relationship Marketing Strategy and Implementation	New	
	Marketing Strategy	New	
	Integrated Marketing Communication	New	Upgrade MKT 545
	Management of Inter-Organizational Relationships	New	
	Collaboration, Knowledge, and Intelligence in Organizations	New	
	Sociology of Adoption and Diffusion	SOC 547	
	Research Practicum I & II	New	
Research Methods	Research Methods	New	Upgrade MKT 544
	Ethnographic Field Methods	ANTHR 530	
	Statistical Methods for Research Workers	STAT 401	
	Statistical Design and the Analysis of Experiments	STAT 402	
	Regression for Social and Behavioral Research	STAT 404	
	Statistical Theory for Research Workers	STAT 447	
	Survey Sampling Techniques	STAT 421	
	Advanced Theory Construction and Causal Modeling	SOC 613	

	Psychological Measurement	PSYCH 440 or equiv.	

Overall, the Ph.D. program will require 19 new 3-credit courses and six (6) new 1-credit courses. Of the nineteen three-credit courses, five currently exist but will need to be redesigned to a Ph.D. seminar status. (It should be noted that one course, MIS 655 is currently offered at the Ph.D. level.) MBA students will be selectively admitted into these courses, but it is anticipated that course requirements and expectations may be different for the MBA students.

A three-pronged strategy will be used to handle teaching the new Ph.D. courses as well as existing undergraduate and MBA courses. First, new faculty hired for each of the three specializations will likely be at the senior faculty level. Not only are they likely to be leaders in each of the areas, the new hires will also enable quicker development of legitimacy to the Ph.D. program. In fact, the COB has been conscious about Ph.D. requirements in its recruitment of faculty in the last two years. Second, senior faculty currently working in each of the three proposed areas of the Ph.D. program will be rotated into offering Ph.D. courses. Third, some of the gaps created by this rotation (particularly at the undergraduate level) will be filled by incoming Ph.D. students.

e. Thesis and non-thesis options in Ph.D. program

All students will need to complete a dissertation to earn the Ph.D. degree.

f. Implications for related areas within the university.

Since the Ph.D. program is likely to be small in size, the impact on existing graduate business and non-business courses will be minimal. Students will be able to satisfy the business foundations requirement, methodology and theory courses, and the minor coursework by selecting courses from a list of approved courses and programs or with the consent of the student's advisor.

g. Admissions standards

The applicant must meet the minimum requirements in the following areas:

GMAT: The GMAT score is a critical part of the application process. A minimum GMAT score of 625 is required for evaluation of an application. However, as can be expected, the higher the GMAT score, the higher the chances of a student's acceptance. Although review of applications can be started without a GMAT score, a final decision will not be made until an official score is received. GMAT scores up to five years old can be accepted by the program.

TOEFL: Students whose first language is not English should provide the results of a Test of English as a Foreign Language (TOEFL). A low TOEFL score (say below 250) will severely reduce chances of acceptance. Inquiries concerning this examination may be made to Test of English as a Foreign Language, Box 6151, Princeton, New Jersey 08540, U.S.A., or to most American embassies and consulates in cities outside the United States. TOEFL is administered internationally by Educational Testing Service; applicants can request ETS to

report examination results directly to the Office of Admissions, College of Business, Iowa State University, Ames, IA 50011.

Academic Transcripts: Applicants need to send with their application official transcripts from all institutions in which they have completed any undergraduate and graduate course work. Applicants are expected to have at least a 3.0 GPA in both their undergraduate and graduate coursework. The transcripts must be in an envelope sealed by the degree granting institution.

Three Letters of Recommendation: Applicants need to send three letters of reference from individuals who can comment on their academic achievements and potential. These letters should indicate the title, affiliation, and qualifications of the person providing the reference. The signature of the person writing the recommendation should be written across the envelope seal. These letters of recommendation, as all other materials, should be sent directly to the Ph.D. program coordinator.

Statement of Purpose: The applicant needs to prepare and send a formal statement of purpose for seeking the doctoral degree and specific reasons for applying to Iowa State University. The statement should also address the applicant's interest and qualifications, including research interest. The statement should not exceed five typed, double-spaced pages.

Curriculum Vitae: A detailed curriculum vitae is needed to complete the application.

Personal Interview: A campus or telephone interview between the applicant and the faculty in the applicant's field will be arranged. Applicants are strongly encouraged to send samples of written work to the admissions review committee.

14. Attach to the program proposal memos from the department chair(s), the college dean(s), and other appropriate persons, agreeing to the allocation of new resources and/or the reallocation of resources as described in the Regents questions

A memo from the Dean of the College of Business is provided in Appendix 5.

15. Attach to the program proposal, letters of support, recommendations, and statements when appropriate:
a. from programs at the other Regents universities
b. from programs and departments at ISU which are associated with the proposed program or have an interest in the proposed program

a. A copy of the response from the University of Iowa is provided in Appendix 6.
b. Copies of responses from Sociology, Psychology, and Statistics—the departments that will be affected most by our program—are attached in Appendix 7.

Appendix 1: Description of the Core and Areas of Specialization.

Core

The core program will introduce students to concepts relating to theoretical and empirical development of scientific knowledge—i.e., philosophy of science. It also will expose students to the domains of business processes and technology management. The focus will be on how firms use technology throughout the value chain network to enable effective and efficient implementation of intra-organizational and inter-organizational strategies.

The core content will focus on:

- basic problems common to the social sciences: the nature of explanation, the structure of theories, forms of knowledge, scientific laws, nature of theory and ethics

- issues relating to development and testing of theory about organizations and inter-organizational systems, their management and organizing processes

- design of effective organizations and the effect of technology on organizational structure, organizational learning, innovation and change, and the assessment of organizational effectiveness

- how technological change can alter the basis of competition and the implications for competitive strategy; how competitive strategy drives technology investment decisions; how market-orientation should be the other backbone of technological innovation; and best practices of organizing and managing the new product development process to achieve strategic goals

Specializations

The primary purpose of technology is to make business processes more efficient and effective. At a macro-level, business processes in organizations can be categorized into broad areas that focus on:

- The creation and leveraging of linkages and relationships to external marketplace entities, especially customers and channel partners.
- The development of new customer solutions and/or the reinvigoration of existing solutions.
- Continual enhancement of the acquisition of inputs and their transformation into desired customer outputs.
- The use of tools and technology in the formulation and execution of the above three processes.

The first category of processes is associated with customer and partner relationships; the second with new product development and entrepreneurship; the third with operations and

supply chain; and the final category with information tools and technology for decision-making.

These process categories form the pillars of the proposed business and technology program. The program will have three areas of specialization:

- Customer Relationship Management
- Supply Chain Management
- Management of Information Technology

Management of new product processes is not offered as a separate specialization. Rather, issues relating to it are integrated within the curricula of the other three specializations.

Customer Relationship Management

Customer Relationship Management (CRM) is focused on delivering solutions that help improve the ways in which businesses attract, capture, service and maintain customers. The CRM process requires organizations to use tools and technologies to identify high-value customers, understand critically at the individual level the specific needs of each customer, attract customers by responding to their uniqueness in a way better than competitors, and maintain this orientation toward customers over a long time period. For successful implementation, CRM requires an organization-wide perspective; it include people, processes and technologies that affect an organization and its customers; and it utilize system information to suggest improvements to the efficiency of customer interaction points.

From a program perspective, the study of CRM should incorporate areas such as consumer behavior, marketing strategy, development of CRM strategy and its fit with both marketing and corporate strategy, relationship marketing, campaign management, data mining and warehousing, customer value measurement and creation, and CRM technologies and tools.

Some of the research issues covered under this specialization may include:

CRM Organization
CRM Effectiveness and Organizational Determinants
Organizational Culture and CRM Adoption
High-Tech Marketing and Innovation Diffusion
Loyalty and Satisfaction
Firm-Intermediary Interface Issues

Supply Chain Management

The domain of Supply Chain Management includes the design, development, and control of business processes for the conversion of inputs into outputs and distribution of those outputs. The traditional focus of SCM was on integration of processes across multiple functions within the firm—operations management, logistics, and purchasing primarily, with elements of marketing and information systems included as well. However, in today's world, where

competition is across supply chain networks, SCM also involves integrating business processes across firms.

Accordingly, the proposed program in Supply Chain Management will be interdisciplinary in nature and cover a variety of areas. One focus area is *supply chain strategy* that governs the entire set of activities from the time an idea or product is conceived to when an order for the product is placed to when the product is received by the customer. It addresses manufacturing and transformation of inputs, logistics performance and benchmarking procedures, processes for customer service and order processing, supply chain integration, logistics information systems architectures and implementation. *Supply management*, sometimes referred to as purchasing is another focus area, and one that has assumed increasing importance because of the outsourcing phenomenon being witnessed today. Associated with supply management is the concept of *demand management*—which looks at issues relating to matching the rate of production to the rate of consumption, a key challenge today since product life cycles have become much shorter. To help control all of these processes, a firm must have effective *information systems*, so an understanding of how information systems interface with the supply chain is needed.

Some of the research issues covered under this specialization may include:

Supply Chain Integration
IT's Role in Supply Chain Management
Supply Chain Management andFirm Performance
Marketing-Manufacturing-Logistics InterfaceIssues
Supply Chain Risk Management Issues
Demand Planning and Management

Supply Chain Management is of critical importance to the business community and will continue to be so in the future. More than one executive has remarked that the basis of competition is no longer company versus company, but supply chain versus supply chain. Yet at the very same time when business has recognized this criticality, there is a shortage of qualified Ph.D.'s in this field. The proposed concentration in supply chain management will meet this specific market need.

Management of Information Technology

Management of Information Technology (MIT) is a term that defines the set of functions related to developing, building, managing, and using information and knowledge-based technologies. Such technologies enable users to collect organizational data, provide a platform for organizing and disseminating the data, and offer operational, decision support, and knowledge management tools through which users can leverage data and information for making better organizational decisions.

From an academic perspective, MIT involves multiple disciplines that span functional and disciplinary boundaries. Specifically, three areas are encompassed in this area: 1) decision and management science, 2) technology and software systems, and 3) organizational and

behavioral science. Programmatically, MIT will incorporate areas such as information technology analysis and development, database and knowledge management systems, decision support and data mining, human computer interaction, system security and integrity, and project management and collaborative teamwork.

MIT will continue to be an important area in organizations because it provides the infrastructure that enables functional areas to operate and achieve strategic success. The proposed track in MIT will help to meet the continuing demand for quality academic researchers and teachers in fields such as Management Information Systems, Information Security and Assurance, Information Sciences, and Human Computer Interaction.

Some of the research issues covered under this specialization may include:

Technology Strategy
Information Technology Enabled Innovations
Knowledge Management
Management of Information Systems and Technologies
Information Economics
IT and Decision Making

Appendix 2: Land Grant Universities and Ranking

The top land-grant universities offer programs at all levels—undergraduate, MBA, and Ph.D. While no syndicated companies collect information and rank schools for Ph.D. programs, the US News & World Report and Business Week provide a ranking of MBA programs every year. We will evaluate below the latest MBA rankings and generalize its implications for the Ph.D. program.

In the 2005 ranking information published by US News and World Report, the top ten land-grant Colleges of Business are affiliated with the following universities: Cornell, Ohio State, Purdue, Minnesota, Illinois, Maryland, Michigan State, Texas A&M, Penn State, and Wisconsin (see Table below). The next five in the list are Arizona, UC-Davis, Florida, Georgia, and Connecticut. Iowa State occupies the 19th spot among 26 land-grant universities in the top-90 business schools of the country.

University	MBA Rank (2005) (base: 293 schools)	MBA Rank (2005) (base: land-grant schools)
Cornell University	15	1
Ohio State University	21	2
Purdue University	23	3
University of Minnesota	23	3
University of Illinios – Urbana	27	5
University of Maryland	27	5
Michigan State University	32	7
Texas A&M University	32	7
Penn State University	37	9
University of Wisconsin, Madison	37	9
University of Arizona	40	11
Iowa State University	74	19

All 18 institutions above Iowa State University in this ranking offer a Ph.D. in business. For Iowa State University to compete with these universities and achieve a top 10 position, the faculty strongly believes that offering a quality Ph.D. program that taps into the technology and scientific strengths of the university is a must. On the other hand, the absence of a Ph.D. program, in our opinion, is (and will continue to be) a definite deterrent on the visibility of our College.

A Ph.D. program is likely to yield benefits that indirectly impact a school's MBA ranking—including, visibility of the institution and its faculty, the quality of students that it is able to attract, incentives to perform cutting-edge research, and networking potential. MBA rankings are based on assessment by peer institutions and recruiters, undergrad GPA, average GMAT score, acceptance rate, placement, and starting salary. Evaluations on these criteria are likely to be influenced by a complex combination of student quality, institutional visibility, program focus and structure, and network externality. More advanced courses and seminars that are open to both Ph.D. and MBA students can be offered. In doing this, the increased level of competition among students can help raise the quality of students and their effort level. Further, if the Ph.D. program is able to attract students from areas that are strong in Iowa State University such as engineering, statistics, psychology and life sciences, it can provide unique opportunities to integrate science and engineering with business. Such a combination will be unique and contribute to increased visibility of the institution.

Appendix 3: Profile of College of Business Faculty

Faculty	**Ph.D. From**	**# of Refereed Pubs.**	**Domain of Expertise**	**Major Awards/ Accomplishments** (select)
Management				
Van Auken, Howard *Professor* (1980)	University of Oklahoma	57	New Venture Financing	Fulbright Scholar 1989, 1994 Teacher of the Year, 1998 Business Impact Award, 2000
Werbel, James *Professor* (1994)	Northwestern Univ.	36	Human Resource Management	Fulbright Scholar **Editor, Journal of Managerial Psychology** Editorial Board, Human Resource Management Review & Human Resource Management Journal
DeMarie, Sam *Associate Professor* (1999)	Arizona State University	16	Technology and Strategy	Graduate Teaching Award, 2003 Richard D. Irwin Foundation Doctoral Dissertation Fellowship
Blackburn, Virginia *Associate Professor* (1986)	University of Kentucky	14	Competitive Strategy	
Herrman, Pol *Associate Professor* (1999)	University of Kansas	13	International Management	VEISHEA's ISU Outstanding Professor, 2001 Undergraduate Teaching Award, 2001, Best Reviewer, Academy of Management, 2005
Blackhurst, Jennifer	University of Iowa	11	Supply Chain System Modeling	
McElroy, Jim *University Professor* (1979)	Oklahoma State University	59	Organizational Behavior	**University Professor**, 2003 Faculty Citation, 1995 ISU Outstanding Teacher Award, 1984
Morrow, Paula *University Professor* (1978)	Iowa State University	66	Organizational Behavior	**Max Wortman Chair, 2005** **University Professor**, 2000 COB Research Award, 2003
Shrader, Brad *Professor* (1984)	Indiana University	28	Business Ethics	Philip G. Hubbard Award for Outstanding Education, 2002 COB Graduate Teaching Award, 2004, 2002, 2000 Best Article Award, *Entrepreneurship Theory & Practice*, 1993

Faculty	Ph.D. From	# of Refereed Pubs.	Domain of Expertise	Major Awards/ Accomplishments
Kaufmann, Jeff *Assistant Professor* (2001)	University of North Carolina	7	Competitive Strategy	Finalist, Free Press Doctoral Dissertation Award, 2000 Richard D. Irwin Foundation Doctoral Dissertation Fellowship
Fernhaber, Stephanie (2006)	Indiana University	1	Entrepreneurship	
Thomas Chacko (1977)	University of Iowa	23	Human Resource Mgmt	

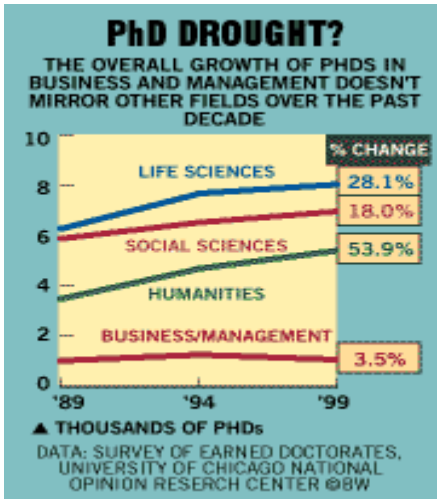
Faculty	Ph.D. From	# of Refereed Pubs.	Domain of Expertise	Major Awards/Accomplishments
Marketing				
Agarwal, Sanjeev *Professor* (1989)	Ohio State University	26	International Marketing and Branding	**JIBS Decade Award, 2002** **President, ISU Faculty Senate, 2004** Dean's Fellow, 2004-2007
Barone, Michael *Associate Professor* (1997)	University of South Carolina	17	Consumer Response Modeling	Funded Research Grants $108,000 COB Research Award, 1999 Marketing Professor of Year, 2003, Delta Sigma Pi
Kim, Stephen *Associate Professor* (2006)	University of Southern California	14	CRM, Channel Management	Best Paper Award, AMA Conference, 1996, 2002
Song, Mindy Ji *Assistant Professor* (2003)	Texas A&M University	5	Consumer-Brand Relationships	
Laczniak, Russell *Professor* (1987)	University of Nebraska	35	Consumer Response Modeling	**Editor, Journal of Advertising** COB Research Award 2000 Dean's Research Fellow, 2004-07
Palan, Kay *Associate Professor* (1994)	Texas Tech University	19	Family Decision Making	Associate Dean, 2004- Visionary Award, Vision 2020, 2000 Teaching Effectiveness Award, 1999
Ramaswami, Sridhar *Professor* (1987)	University of Texas	29	CRM, Strategic Marketing	COB Research Award, 1992, 2004 **JIBS Decade Award, 2002** Dean's Research Fellow, 2004-07
Roy, Tirthankar *Assistant Professor* (2003)	University of California, LA	2	Consumer Modeling	
Teas, Roy *Professo*r (1979)	University of Oklahoma	55	Strategic Marketing	**University Distinguished Professor**, 1995 Dean's Research Fellow, 2004-07
Wong, John *AssociateProf.* (1980)	University of Alabama	11	Strategic Marketing	Funded Research Grants $380,000 Department Chair, 1986-1990

Faculty	Ph.D. From	# of Refereed Pubs.	Domain of Expertise	Major Awards/ Accomplishments
LOMIS				
Crum, Michael *Professor* (1983)	Indiana University	42	Logistics and Supply Chain Management	**DeVries Endowed Chair in Business, 2005** College Teaching Awards, 1996, 2003, 2005 College Research Award, 1986, 1998 Fulbright Scholar, 1988-89
Hackbarth, Gary *Assistant Prof.* (2000)	University of South Carolina	4	IT Security	
Johnson, Danny *Associate Professor* (1998)	University of Wisconsin, Madison	8	Quick Response Manufacturing	Business Council Teacher of the Year, 2003
Lummus, Rhonda *Associate Professor* (2000)	University of Iowa	20	Supply Chain Management	2003 Romey Everdell Award, *Production and Inventory Management Journal* COB Business Impact Award, 2003
Mennecke, Brian *Associate Professor* (1999)	Indiana University	16	IT, GIS, Mobile Commerce	COB Innovation in Teaching Award, 2004 Dean's Fellow 2004-07
Montabon, Frank *Assistant Professor* (2000)	Michigan State University	14	Supply Chain Management	Best Environmental Paper Award, DSI, 2002, 2001 COB Research Award, 2002 DSI Hall of Fame
Nilakanta, Sree *Associate Professor* (1985)	University of Houston	20	Business Process Management	Nominee, Best Effective Instructor, 2003 Nominee, Innovation in Teaching Award, 2003
Poist, Richard *Professor* (1991)	Penn State University	67	Supply Chain Management	State of Iowa VP, National Defense Transportation Association Teacher of Year Award, 2003, Delta Sigma Pi
Premkumar, Prem *Professor* (1989)	University of Pittsburgh	25	E-Commerce Telecom, Supply Chain Systems	**Union Pacific Professor** in MIS, 2000- Associate Editor, MIS Quarterly, 2004 Nominee, COB Graduate Teaching Award, 2001, 2004

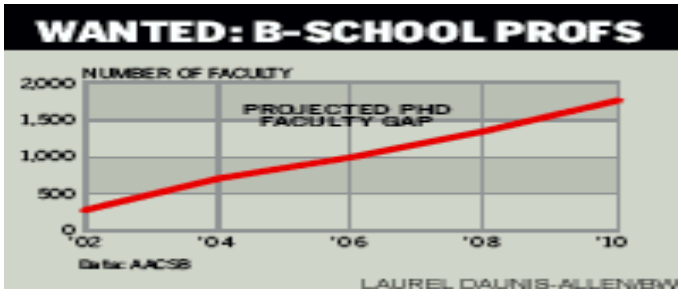
Faculty	Ph.D. From	# of Refereed Pubs.	Domain of Expertise	Major Awards/ Accomplishments
Ruben, Robert *Associate Professor* (2000)	Indiana University	11	Shop floor control, warehousing	Teacher of Year Award, 2003, Delta Sigma Pi Outstanding Teacher of Month, Business Council, 2000
Scheibe, Kevin *Assistant Professor* (2003)	Virginia Tech	6	DSS, GIS, Wireless Networks	R.B. Pamplin Doctoral Fellowship, 2000 SE Informs Ph.D. Student Paper Competition Award, 2001
Suzuki, Yoshinori *Assoc. Prof.* (1998)	Penn State University	20	Airline & airport mgmt.	Nominee, COB Research Award, 2000, 2003 Nominee, Innovation in Teaching Award, 2001
Townsend, Anthony *Associate Professor* (2003)	Virginia Tech	40	Virtual Teams; Ag Supply Chain	COB Innovation in Teaching Award, 2004 Editor, Academy of Management Newsletter Assistant Editor, Journal of Labor Research
Tiwana, Amrit Assistant Professor (2004)	Georgia State University	30	Knowledge Management	Authored a text book on knowledge management in 2002 Best Paper Award, Decision Sciences, 2006 Research Award, COB, 2006
Walter, Clyde *Professor* (1984)	Ohio State University	34	Inventory Control	Funded research from DSM Airport, Iowa DOT, and ISU
Zhu, Dan *Assoc. Prof.* (1998)	Carnegie Mellon University	9	MIS	Nominee, Innovation in Teaching Award, 2000
Martens, Bobby Assistant Professor (2004)	Purdue University	2	Supply Chain Safety/Food Safety	Outstanding Graduate Student Teaching Award, 2006

Appendix 4: Demand for Ph.D. Degree

According to AACSB, there is a dearth of Ph.D. business students at this time. In 2002, a total of 1095 students received a Ph.D. degree in business. This number has remained relatively flat (3.5% growth in the 1990s) when compared to the growth experienced in fields such as humanities (54%) and life sciences (28%).



Of these 1095 students, approximately 40 percent joined Corporate America, leaving a mere 650 people to fill faculty spots at business schools (Merritt 2004). In terms of academic impact, the number of slots that could not be filled with doctorate-holding faculty in 2003 was about 500, more than double the number two years earlier. Moreover, the prediction is for this number to widen in the next 5-7 years. The following chart projects the faculty gap for the period 2002-2010.



Currently, this gap is being filled with qualified individuals from the ranks of current and former business executives. A key question posed by educators is whether the quality of business education may suffer because of over-reliance on clinical faculty. Relating to this issue, the Doctoral Faculty Commission suggested in a recent report that the real threat facing collegiate business schools is "scholarship." Doctoral faculty produces the body of knowledge that is behind ongoing development of a discipline. The lack of sufficient number of faculty involved in this endeavor is likely to negatively impact the growth of business disciplines and, in turn,

compromise service to students and erode preparation of business leaders. Ensuring adequate supply of faculty must, therefore, be a primary concern for education planners in this country and around the globe.

Three other related trends in Ph.D. education aggravate this problem. First, 80 percent of doctoral degrees today are awarded by public universities, which have been facing repeated budget contraction since 2000. Second, more than half the enrolled doctoral students are on temporary visas and are not immediately eligible for employment in the US after graduation. Third, demographic analysis of current faculty in business schools indicates that a significant number of retirements are looming ahead in the next 5 to 10 years.

In summary, it is clear that there will be a large shortage of doctoral-qualified faculty in coming years and development of new Ph.D. programs in colleges of business will not face demand as a constraining factor. In other words, if Iowa State University were to offer a Ph.D. program in Business, there will be a market for its graduates.

Appendix 5: Memo from Dean Hira, College of Business

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Interoffice Communication

Date: September 7, 2006

To: Dr. Ken Kruempel
Chair
Graduate Curriculum and Catalog Committee

From: Labh Hira
Dean
College of Business

RE: Proposed PhD program

The College of Business (COB) has established a strong reputation for high quality undergraduate and master level programs. It has a number of nationally recognized researchers and a strong national reputation in selected fields. Therefore, the proposed Ph.D. program is part of the natural evolution for the College as it becomes a comprehensive college.

The proposed program is also essential to fulfill the College's strategic goals. Moreover, it will allow the College to contribute to the University's mission as a Carnegie Doctoral/Research Extensive University. Since funding for capital projects is no longer a priority for the College, all future fundraising efforts will be devoted toward programmatic support and faculty and staff resources. The College is committed to meeting the estimated resource needs of this proposal. As a result, we will allocate new resources and/or reallocate existing resources to the proposed Ph.D. program in the College. I believe there is no better strategic use of new College resources than the proposed doctoral program in the College.

Cc: Michael Crum

Appendix 6: Response from the University of Iowa

From: Crum, Mike [mailto:mcrum@iastate.edu]
Sent: Tuesday, July 11, 2006 3:27 PM
To: Whiteman, Charles H
Cc: Brown, Matsalyn L B; Buettner, Carol M; Ramaswami, Sridhar
Subject: Proposed Ph.D. program at Iowa State

Dear Dr. Whiteman,

The College of Business at Iowa State University will be submitting its proposal for a Ph.D. program to the Faculty Senate this fall semester. One of the requirements by the Board of Regents is that we inform the other Iowa universities and colleges that offer Ph.D. programs in business, and report their response to our proposal.

I have attached the "short version" of our proposal for your review. It describes the curriculum in some detail and also provides our perspective on how we are similar to and how we are differentiated from your program. It includes, too, the primary reasons why we are proposing the program.

My colleague, Sridhar Ramaswami, and I would be happy to discuss the proposal and address any questions or concerns you might have, at your convenience. We would be very happy to come to Iowa City to do so.

Thank you for reviewing our proposal, and we look forward to hearing your thoughts about it.

Best regards,

Mike

Michael R. Crum
Associate Dean for Graduate Programs
John and Ruth DeVries Chair in Business
Professor of Logistics and Supply Chain Management
Iowa State University
2200 Gerdin Business Building
Ames, IA 50011-1350
(515) 294-8105
mcrum@iastate.edu

From: Whiteman, Charles H [mailto:whiteman@uiowa.edu]
Sent: Thursday, July 27, 2006 3:00 PM
To: Crum, Mike
Cc: Anstreicher, Kurt M; Street, William N; Cole, Catherine A; Russell, Gary J
Subject: RE: Proposed Ph.D. program at Iowa State

Dear Mike,

I have met with the department chairs and directors of graduate studies in the Management Sciences and Marketing Departments regarding your proposal. To summarize our discussion, our group believes that

1) there is little overlap between your proposed MIT track and our MIS track: yours is more focused on strategy and behavior aspects of information technology, while ours is more technical;
2) there is some overlap between your CRM track and our Marketing track in the sense that a Ph.D. candidate here could specialize in CRM and would have several faculty members with whom to work, yet there is a distinction in that our CRM focus is more quantitative while yours is more behavioral—one group member described the distinction as "Harvard CRM" (yours) vs. "MIT (as in the school) CRM" (ours);
3) there is substantial overlap between your proposed Supply Chain Management track and our Operations Management track; it may not be apparent from the one paragraph overview of the OM track on our website, but it is much more apparent in the expertise and research interests of our Ph.D. program faculty that logistics is indeed one of the strong suits of our OM track. Our group noted that one way to make a distinction would be for your track to focus more on say the role of contracts and incentives in the supply chain rather than (as our faculty might) to focus on using optimization algorithms to design optimal delivery routes.

I should hasten to add that my own view is that some overlap is to be expected, particularly as you develop Ph.D. programs central to the mission of a top business school. I wish you success in that effort.

I would be happy to discuss the matter further with you.

Regards,
Chuck Whiteman

Charles H. Whiteman
Senior Associate Dean, Tippie College of Business
Henry B. Tippie Research Professor of Financial Economics
Director, Institute for Economic Research
Suite C120 PBB
The University of Iowa
Iowa City, IA 52242-1994
http://www.biz.uiowa.edu/faculty/cwhiteman/
(319) 335-0865 (voice)
(319) 335-0860 (fax)

Appendix 7: Responses from ISU Departments

From: Paul Lasley [plasley@iastate.edu]
To: mcrum@iastate.edu
Cc:
Subject: Review of PhD proposal

Dear Dr. Crum,

The Graduate Curriculum Committee in the Department of Sociology has reviewed the proposal and voted to endorse the concept. A Phd in Business will complement our Phd in Sociology and perhaps will result in more collaboration between your college and our department. I can envision some our students may elect to take courses from your proposed curriculum and perhaps there are courses in sociology that might appeal to some of the business students. As your program gains approval and opportunities to collaborate with sociology emerge, please let me know. Best wishes on
this program. Paul

Paul Lasley
Professor and Chair
Department of Sociology
Iowa State University
Ames, Iowa 50011

phone: 515-294-0937
email: plasley@iastate.edu

Iowa State University
of Science and Technology

Interoffice Communication

Date: October 25, 2006

To: Professor Michael Crum, Associate Dean
College of Business

From: Kenneth Koehler, Chair
Department of Statistics

Re: Proposed PhD program in Business

The Department of Statistics supports the proposal for a PhD program in the College of Business. We believe that offering a PhD in Business will improve the research visibility of the College of Business as well add to the Research I status of the University. As we discussed, courses in statistics that we currently offer for graduate credit at the 400 or 500 level would provide an excellent foundation in research methodology for the students in your proposed program. We can easily accommodate those students without adding any additional courses or sections of courses that we now offer, so the resource implications to the Department of Statistics would be minimal.

We frequently have students with backgrounds in finance and other areas of business inquire about graduate study in statistics at Iowa State University. In addition to our straight PhD in Statistics, we also offer a co-major PhD in Applied Statistics with many other graduate programs. In recent years we have had co-majors with Agronomy, Animal Science, Bioinformatics, Computer Science, Economics, Mathematics, Psychology, Sociology, Education, and a variety of Engineering programs. Graduates with expertise in these disciplines and strong statistical training are in very high demand. We are sure this would also be true for co-majors in Business and Statistics. In the past, we have directed students with such interests to other universities because of our lack of a PhD program in Business. Once your PhD program becomes established, I think we can help recruit a few very strong students. We have several faculty interested in statistical modeling aspects of finance and risk assessment, that could help direct such students and also develop research collaborations with faculty in the College of Business.

We hope the proposal is successful and we look forward to continuing our dialog with you as the program is developed.

To: Prof. Michael Crum
Associate Dean, College of Business

Date: October 17, 2006

I have reviewed the PhD proposal that you sent us and would like to offer the following comments.

Both Psych 440 and Psych 508 are required courses in the proposed program. Psych 440 is currently at maximum capacity with close to 90 students enrolled every semester. This course is open only to Psychology majors. We are currently developing a graduate level measurement course that would be more appropriate for your PhD students than Psych 440. Psych 508 could handle a few additional business students every year but this is probably not the best course for business students because the focus of this course is on research methods for counseling psychologists. Psych 586 (Research Methods in Social Psychology) is a more appropriate course but Psych 586 is currently at maximum capacity and cannot accommodate any additional students. HDFS 603 would be another course to consider. As the proposal takes further shape, I would be happy to work with the PhD coordinator from the College of Business to discuss any other course requirements that involve the Department of Psychology.

Douglas G. Bonett
Professor of Statistics and Psychology
Chair, Department of Psychology