# FORM A

**Board of Regents, State of Iowa**

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

**October, 2015**

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

CIP Discipline Specialty Title: Entrepreneurship

CIP Discipline Specialty Number (six digits): Will be added

Level: PhD

Title of Proposed Program: PhD Concentration in Entrepreneurship

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

Approximate date to establish degree: Month August

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

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College that will administer new program: College of Business

Year 2016

Please provide the following information (use additional pages as needed). Do not use acronyms without defining them.

1. Describe the proposed new degree program, including the following:
   1. A brief description of the program. If this is currently being offered as a track, provide justification for a standalone program.

There is currently no coursework offered in entrepreneurship at the Ph.D. level in the College of Business. Entrepreneurship is currently offered as a track in the Management major in the College of Business. Assessment of US colleges with leading entrepreneurship programs revealed that they tend to offer both a major and minor in entrepreneurship to undergraduate students. ISU is currently only offering a university-wide entrepreneurship minor.

* 1. A statement of academic objectives;

The goal of the PhD concentration in entrepreneurship is to provide students with an in-depth and rigorous study of the field of research in entrepreneurship. Upon completing the PhD concentration in entrepreneurship, graduates will be prepared to pursue research opportunities as well as educate students in the academic field. Success in entrepreneurship requires a broad base of conceptual knowledge, personal skills, and competencies. The required courses in the proposed PhD will provide a strong background in the historical foundations and current trends in entrepreneurship research.

* 1. What the need for the program is and how the need for the program was determined;

The demand for PhD-trained faculty in entrepreneurship is expected to increase over the next several years. The Kauffman Foundation estimates that more than 5,000 entrepreneurship classes were offered by U.S. Universities with over 400,000 students enrolling in these classes in 2008, and this number is expected to grow significantly in the future[[1]](#footnote-1). Further, according to the Academy of Management (AOM) placement site, the number of job applicants listing entrepreneurship as a primary area of expertise decreased from 173 in 2010 to 129 in 2014. This suggests that, while there is an increased need for PhDs trained in entrepreneurship, that need is not currently being met by faculty formally trained in entrepreneurship. Further, there is also a strong market demand for Ph.D. degree candidates who have completed coursework in entrepreneurship as scholars from multiple functional areas have begun to teach and research entrepreneurial issues, e.g. entrepreneurial finance, international entrepreneurship. Job listings in strategy and organizational behavior often demand secondary training in entrepreneurship.

* 1. The relationship of the proposed new program to the institutional mission and how the program fits into the institution’s and college’s strategic plan;

The entrepreneurship concentration will clearly align with ISU’s mission and strategic plan, as well as the strategic plan of the College of Business (shown below).

ISU’s Mission – “We will design tools and infrastructure that will create entrepreneurial opportunities.”

ISU’s Strategic Plan –Priorities: Iowa State will be a magnet for attracting outstanding students who seek an

education that prepares them to make a difference in the world.

College of Business Strategic Plan –Primary Goal: Strengthen Undergraduate Education through increased participation and opportunities in Entrepreneurial programs.

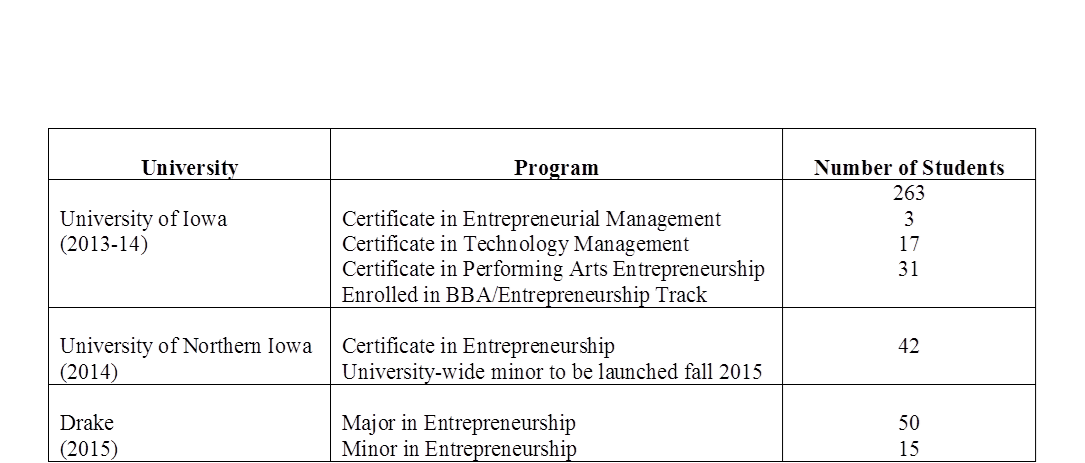
* 1. The relationship of the proposed new program to other existing programs at the institution; describe how the proposed program will enhance other programs at the university. Will the proposed program duplicate existing programs at the university?

The proposed PhD concentration in entrepreneurship does not duplicate existing programs, but will complement existing PhD concentrations in the College of Business and entrepreneurship initiatives at Iowa State University that include, for example, the entrepreneurship minor, CyBIZ Lab, and entrepreneurship learning community. Iowa State has always taken pride in the fact that its academic and business development programs are well integrated, providing unique educational opportunities for students.

Furthermore, one of the Board of Regents Strategic Plan Goals states: “The public universities shall contribute to the expansion and diversification of the Iowa economy.” Through academic training and experiential learning, students in the entrepreneurship program at Iowa State will be better prepared to pursue facilitate entrepreneurial opportunities in Iowa through expanded educational opportunities.

* 1. 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.

To our knowledge, none of the other colleges and universities in Iowa currently offer a PhD concentration in entrepreneurship. A list of undergraduate programs in entrepreneurship is included below.



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

Iowa State University was one of the first institutions in the country to offer an interdisciplinary academic program in entrepreneurship. The Pappajohn Center for Entrepreneurship offers a wide variety of entrepreneurship programs that include, for example, the Entrepreneurship and Innovation Learning Community, Internships/Experiential Learning Opportunities, Entrepreneur Forums, Innovation Pitch Competitions, Entrepreneurship Clubs, the [Okoboji Entrepreneurship Institute](http://www.isupjcenter.org/programs/okoboji/), Business Plan Competitions, and the Reiman Scholars Program. A solid foundation has been developed and was acknowledged by the United States Association for Small Business and Entrepreneurship (USASBE) in selecting Iowa State University as “Model Undergraduate Entrepreneurship Program” in 2009. Expansion and fine tuning of the current academic programs would allow us to continue to build upon the recognized program currently in place at Iowa State.

* 1. Are the university’s personnel, facilities, and equipment adequate to establish and maintain a high quality program?

Yes. The infrastructure is currently in place to offer a strong PhD concentration in entrepreneurship.

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

This unmet need is further supported by information provided by the Academy of Management on placements. Of the six primary areas of management (Strategy, Organizational Behavior, Human Resources, International Management, Organizational Theory, and Entrepreneurship), entrepreneurship had the second lowest applicant to job ratio in 2014 (see chart taken from the Academy of Management placement site). Further, schools with PhDs in entrepreneurship noted strong placements during the past several years. For example, Oklahoma State (a school similar in profile to ISU) has placed students at Tulane and Virginia Commonwealth during the past few years; Louisville has placed students at Ball State and Ohio University; Indiana has placed students at Baylor, Georgia State University, ISU, and Oklahoma; and Syracuse has placed students at TCU and Ohio State University.

**Academy of Management Listing of Management Jobs by Discipline (As of August 2014):**

|  |  |  |
| --- | --- | --- |
| **Job Type** | **Year -2014** | **Applicant to Job Ratio** |
| Strategy | 205 | 1.51 |
| OB | 157 | 1.82 |
| HR | 77 | 1.13 |
| International | 49 | 1.61 |
| Entrepreneur | 129 | 1.15 |
| OT | 46 | 1.59 |

Traditionally, PhDs applying for jobs in entrepreneurship have been trained in broader programs housed within Management departments or other functional business areas such as Strategy or Organizational Behavior. This trend continues with several Management programs (such as Wisconsin, Minnesota, etc.) that offer doctoral seminars in entrepreneurship. However, we were able to identify only seven US universities that offer PhD degrees in entrepreneurship (Indiana, Syracuse, Oklahoma State, Louisville, University of Missouri-Kansas City, and the newly created programs at Oregon State and Baylor).  Conversations with scholars heavily involved with four of these programs highlighted a strong need for doctoral education in entrepreneurship. This need is closely related to the growing enrollment in undergraduate and graduate programs in entrepreneurship (information was gathered from Drs. Don Kuratko, Jeff Covin, and Tricia McDougall-Covin at Indiana; Dr. Jim Fiet at Louisville; Drs. Mike Morris and Brandon Mueller from Oklahoma State; Dr. Jeff Hornsby at UMKC; Dr. Don Neubaum at Oregon State; and Dr. Alex McKelvie at Syracuse).  Additionally, several of these scholars reported ‘halo effects’, whereby the existence of a doctoral program in entrepreneurship helps to positively influence those schools’ undergraduate rankings in entrepreneurship.

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

Entrepreneurship is a growth area for both academic and applied jobs. Several years ago, the Kaufman Foundation reported that entrepreneurship was the fastest growing academic area in terms of program, faculty and courses. Over 95% of firms in both Iowa and the US are small firms, and more than 500,000 new small firms are created each year.

The American Management Association identified 4 critical skills for the 21st Century workforce: 1) Critical thinking and problem solving—including the ability to make decisions, solve problems, and take action as appropriate; 2) Effective communication—the ability to synthesize and transmit your ideas both in written and oral formats; 3) Collaboration and team building—the ability to work effectively with others, including those from diverse groups and with opposing points of view; 4) Creativity and innovation—the ability to see what’s NOT there and make something happen. An entrepreneurship concentration would be well positioned to develop all four of these skills.

<http://www.p21.org/storage/documents/Critical%20Skills%20Survey%20Executive%20Summary.pdf>

The American Association of American Colleges & Universities conducted a survey suggesting that innovation is a priority among today’s employers.

<https://www.aacu.org/publications-research/periodicals/it-takes-more-major-employer-priorities-college-learning-and>

Entrepreneurship can also be positioned as a skill building concentration, which fosters collaboration, communication, creativity and flexibility, which were mentioned as being important in the study below.

<http://www.forbes.com/sites/kevinkruse/2012/12/26/ibm-ceo-study/>

1. 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:

To our knowledge, none of the other colleges and universities in Iowa currently offers a PhD concentration in entrepreneurship. The University of Iowa and the University of Northern Iowa both have undergraduate certificate programs in entrepreneurship. Drake has an undergraduate major and minor in entrepreneurship. However, the number of students is rather small and the program differs in content from the proposed program at Iowa State.

1. 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.
   1. Undergraduate \*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Graduate\* | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 |
| Majors | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-Majors | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

* 1. Graduate

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Graduate | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | Yr 6 | Yr 7 |
| Majors\* | 2 | 4 | 6 | 8 | 8 | 8 | 8 |
| Non-Majors | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

\* 2 Admissions per year into the program

* 1. What are the anticipated sources of these students?

Students will be recruited both domestically and internationally.

1. 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. Will off-campus delivery require additional **HLC accreditation**?

The PhD concentration in entrepreneurship will not be offered off-campus.

1. Has the proposed program been reviewed and approved by the appropriate campus committees and authorities?

This proposal will go through the required processes for faculty and administrative review.

1. List date the program proposal was submitted to the Iowa Coordinating Council for Post High School Education (ICCPHSE) and results of listserv review.

Provost office will add this date as the approval process continues.

1. Will the proposed program apply for programmatic accreditation? When?

The PhD concentration in entrepreneurship will fall under the overall College of Business accreditation process.

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

No

1. Will there be opportunities for student internships?

The intent of the PhD concentration does not include internships.

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

Four existing tenure-track faculty (Van Auken, Kreiser, Schwab, and Kiss) and existing College of Business advisors will help to support this program. Additional faculty may be added in the future to help administer the program.

1. 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)?

|  |  |
| --- | --- |
| **SOURCES** | **TOTAL AMOUNT** |
| Funds (years 1-7) will be from Dean’ Office | $465500 |
|  |  |

1. Estimate the total costs/total new costs (incremental increases in expenditures) that will be necessary for the next seven years as a result of the new program. Be as specific as possible.

|  |  |  |
| --- | --- | --- |
|  | **TOTAL COSTS** | **TOTAL NEW COSTS** |
| Year 1 | $66,500 | $66500 |
| Year 2 | $66,500 | $133,000 |
| Year 3 | $66,500 | $199500 |
| Year 4 | $66,500 | $266000 |
| Year 5 | $66,500 | $332500 |
| Year 6 | $66,500 | $399000 |
| Year 7 | $66,500 | $465500 |

1. Describe the marketing plan developed to communicate the new program and recruit students.

# The PhD concentration will be marketed through the College of Business Graduate Programs Office. We expect that the reach of these marketing efforts will be extensive.

1. Describe the program evaluation plan to determine if the program is meeting the intended objectives, if the expected student enrollment has occurred, funding for the program, and any other components that affect the effective operation of the program.

Like all new program at ISU, the PhD concentration in entrepreneurship will be reviewed yearly to assess the need for future curriculum changes. Key stakeholders will be consulted in determining the future direction of the program.

1. Include any additional information that justifies the development of this program.

**Appendix A: Proposed Curriculum**

Required Courses

MGMT 603 Strategic Management of Technology and Innovation (currently taught by Pol Hermann)

MGMT 60x: Foundations of Entrepreneurship Research (new course)

This seminar provides an overview of major topics and theories in the field of entrepreneurship. Students will be introduced to the economic, institutional, and psychological theoretical underpinnings of the field as well as to common methodological approaches to the study of entrepreneurial phenomena. Topics covered include the origins of entrepreneurship and entrepreneurial opportunity, opportunity recognition, corporate entrepreneurship, and new venture creation and management.

MGMT 60x: Emerging Trends in Entrepreneurship Research (new course)

This seminar provides an overview of emerging and promising theoretical perspectives and empirical approaches to the study of entrepreneurial behavior. Topics covered may include entrepreneurial cognition, entrepreneurial networks/social capital, entrepreneurial failure, international entrepreneurship, and other topics related to current trends in entrepreneurship research.

Select one of the following seminars:

MGMT 604: Organizational Behavior

MGMT 605: Strategy

MGMT 606: Organizational Theory

Adjustment/Title Change of Existing Courses

MGMT 605 Strategy and Entrepreneurship becomes MGMT 605 Strategy.

1. Torrance, W. (2013): <http://www.kauffman.org/~/media/kauffman_org/research%20reports%20and%20covers/2013/08/eshipedcomesofage_report.pdf>, [↑](#footnote-ref-1)