Memo

To: Sarah Mangelsdorf, Provost

From: François Ortalo-Magné, Dean

CC Elizabeth Oidders-White, Senior Associate Dean for Academic Programs
Jon Eckhardt, Executive Director of the Weinert Center for Entrepreneurship

Date: July 1, 2016

Re: Program Review Summary of Certificates in Entrepreneurship and Strategic Innovation

On behalf of the Wisconsin School of Business, I endorse the review of the graduate Certificates in Entrepreneurship and Strategic Innovation. The School’s Academic Planning Council unanimously approved this report at their June 20, 2016 meeting noting that the long term continuation of these certificates will need to be revisited unless a sustainable financial model is developed. We request that it move forward for the approval of the Graduate Faculty Executive Committee (GFEC).

Graduate Certificate in Entrepreneurship:

This certificate requires a foundation course, advanced entrepreneurship coursework, and electives from across the campus totaling 12 required credits. Students are strongly encouraged to participate in related non-credit entrepreneurship immersion experiences via competitions and student organizations. The foundation course has no prerequisites and is open to all graduate students on campus. To complete the certificate, students must complete the following requirements: 1) take one three-credit required foundation course (MHR 722 - Entrepreneurial Management); 2) choose at least three additional credits from a list of Wisconsin School of Business advanced entrepreneurship coursework; and, 3) select up to six credits of additional courses from other elective coursework or advanced entrepreneurship coursework.

Graduate Certificate in Strategic Innovation:

The required foundation course, advanced entrepreneurship coursework, and electives from across the campus equal a minimum of 12 total credits that must be completed to earn the certificate. Students are strongly encouraged to participate in related noncredit entrepreneurship immersion experiences via competitions and student organizations. The foundation course has no prerequisites and is open to all graduate students on campus. To complete the certificate, student must complete the following requirements: 1) take one required foundation course (MHR 715 - Strategic Management of Innovation); 2) choose at least three additional credits from a list of Wisconsin School of Business advanced innovation coursework; and 3) select up to six credits of additional courses from other elective coursework or advanced entrepreneurship coursework.
The third requirement for each certificate allows a student to select up to six credits of additional coursework from an extensive list of course options. This presents a need for an accurate list of additional courses that needs to be continuously monitored and updated, as students sometimes comment that not all the courses are available. One suggestion is to have the website indicate what semester these courses are typically offered.

The program review committee unanimously determined that these programs are meeting the standards of quality and the needs of students as outlined in the original proposals and should be continued. One of the reasons to continue these certificates is that students, interested in a variety of educational endeavors, are looking for programs that address the topics of leadership in entrepreneurial contexts. Also, these certificates are helping students develop educational and innovativeness capabilities. Although the Certificate in Entrepreneurship has an average of awarding 19.4 certificates a year, broadening the base of students earning the certificates is another recommendation. The Certificate in Strategic Innovation awards an average of 10.3 certificates a year. Both numbers are impressive when considering the campus-wide mean for all graduate certificates is 3.2 annually.

The committee fully understands that not all students have the capacity to add a certificate depending on their graduate program. However, the committee suggests it would like more students from a wider representation of areas, such as Engineering, completing a certificate. This suggestion leads to the recommendation of more aggressive marketing of the certificates across campus. There is definitely potential for the graduate certificates to grow.

I have extended my thanks to the participants on the review committee: Nancy Murray, Chair, SOHE; Barry Gerhardt, Business; Mary Louise Gomez, GFEC; and Marek Waretka, Economics. I appreciated the time and thoughtfulness they extended to completing these reviews. We will take their recommendations seriously and work to expand the reach of these certificates across campus and provide accurate listings of courses on the websites.

The program report and self-study accompany this memo.

Please contact me if you have any questions or concerns regarding these program reviews. Thank you.
To: François Ortalo-Magné, Albert O. Nicholas Dean, Wisconsin School of Business  
From: Nancy Murray, Faculty Associate, School of Human Ecology  
        Chair of Certificate in Entrepreneurship and Strategic Innovation Program Review Committee  
Cc: Barry Gerhart, Professor, Wisconsin School of Business  
    Mary Louise Gomez, Professor, School of Education  
    Marek Weretka, Associate Professor, College of Letters and Science  
    Jon Eckhardt, Associate Professor and Executive Director of the Weinert Center for  
        Entrepreneurship, Wisconsin School of Business  
    Ruth Joyce, Director of Academic Affairs, Wisconsin School of Business  
Date: May 13, 2016  
Re: Certificates in Entrepreneurship and Strategic Innovation- Program Review Complete  
The overall purpose of the Certificates in Entrepreneurship and Strategic Innovation review was to determine if the three certificates are on track, serving students well, and if the three certificates should be continued, while providing suggestions for improvement. The three certificates being reviewed simultaneously are: Undergraduate Certificate in Entrepreneurship, Graduate Certificate in Entrepreneurship and Graduate Certificate in Strategic Innovation.  
The committee first met on April 6th, again on April 20th to interview students within the certificate program and lastly on May 11th. The committee gathered and utilized the following sources of information: original program proposals, program self-studies by faculty and staff, student interviews, and UW data of awarded certificates by major.  
In summary the committee’s findings were:  
Certificate Course Offerings  
Undergraduate Certificate in Entrepreneurship:  
Students 1) take one three-credit required foundation course (MHR 322 OR MHR 422), 2) choose at least three additional credits from a list of related Wisconsin School of Business advanced entrepreneurship coursework, and 3) select up to nine credits of additional courses from a list of a plethora of elective coursework or advanced entrepreneurship coursework. MHR 322 is open only to students from outside of the Wisconsin School of Business and MHR 422 is open to all students.  
This certificate program offers a distinct bundle of choices of many courses that span business entrepreneurship courses and the curricula of several colleges and schools at UW-Madison. It emphasizes skills in entrepreneurship, creativity, and innovation along with the ability to analyze the role of entrepreneurship in society.  
Graduate Certificate in Entrepreneurship:  
The required foundation course, advanced entrepreneurship coursework, and electives from across the campus to add up to 12 required credits. Students are strongly encouraged to participate in related non-credit entrepreneurship immersion experiences via competitions and student organizations. The foundation course has no prerequisites and is open to all graduate students on campus. Students 1) take one required foundation course (MHR 722 - Entrepreneurial Management) 2) choose at least three additional credits from a list of Wisconsin School of Business advanced
entrepreneurship coursework and 3) select up to six credits of additional courses from other elective coursework or advanced entrepreneurship coursework.

**Graduate Certificate in Strategic Innovation:**
The required foundation course, advanced entrepreneurship coursework, and electives from across the campus equal a minimum of 12 total credits. Students are strongly encouraged to participate in related noncredit entrepreneurship immersion experiences via competitions and student organizations. The foundation course has no prerequisites and is open to all graduate students on campus. Students: 1) take one required foundation course (MHR 715 – Strategic Management of Innovation); 2) choose at least three additional credits from a list of Wisconsin School of Business advanced innovation coursework; and 3) select up to six credits of additional courses from other elective coursework or advanced entrepreneurship coursework.

**Goals and objectives**
The goals and objectives from the original program were evaluated. It was determined that the certificate programs are meeting standards of quality that are expected based on the original proposal.

**Importance to the UW**
The certificates are important to continue at the UW for many reasons. One major reason being, the undergraduate certificate is promoting entrepreneurship awareness and skill development in students across the entire UW–Madison campus. Students in a variety of majors actively seek educational programs that address issues of leadership in entrepreneurial contexts. Also, the certificates are helping students develop entrepreneurial and innovativeness capabilities. Although there are a variety of majors in the certificate programs, the majority of awarded undergraduate Certificate of Entrepreneurship to date come from four majors on campus: Retailing and Consumer Behavior, Economics, Life Sciences Communication, and Communication Arts.

**Strengths of certificates**
1. Content is applicable to a variety of majors.
2. There are many options of courses to fulfill requirements. Students have a wide variety of courses to select from that are of most interest to them.
3. Students expressed appreciation of the variety of majors and perspectives in courses.
4. We applaud the knowledge and passion of instructional faculty
5. The undergraduate certificate is one of the top 10 certificates awarded on campus
6. Substantial growth in undergraduate certificate awards over the past 4 years (2011-2015)
   a. 140 undergraduate certificates awarded in 2015 which was a 63% increase over 2014
   b. 86 undergraduate certificates awarded in 2014 which was a 110% increase over 2013
   c. 41 undergraduate certificates awarded in 2013 which was a 141% increase over 2012
7. The graduate certificates are two of the highest number of certificates awarded at UW-Madison
   a. The Strategic Innovation certificate has a mean of 10.3 awarded certificates per year
   b. The graduate Certificate in Entrepreneurship has an average of 19.4 awarded certificates per year.
   c. Comparison: the campus-wide mean for all graduate certificates is 3.2 per year.
Weaknesses of certificates

1. It is difficult for students in some majors to find time in their program to pursue the certificate and still graduate within four years
2. Some certificate students may find it difficult to enroll in some School of Business courses at their ideal time partly due to the priority enrollment for other School of Business or Certificate of Business students
3. Some courses listed are no longer being offered or are outdated

Opportunities for certificates

1. Stronger recruitment and outreach with under represented cohorts for undergraduate certificate
   a. Connect and collaborate better with the Engineering programs
      i. Market and provide certificate information with Engineering programs
      ii. Discuss if any course listings could be cross listed
2. Because of the flexibility and offering of so many courses outside of the School of Business, courses listed for certificate need to continuously be monitored and updated
   a. One option might be to update the website each semester with the next semester’s schedule indicating courses that are being offered
   b. Indicating courses offered spring semester versus fall semester to help certificate students plan
3. Graduate certificates with additional recruiting and marketing have potential to grow further

In conclusion, the Certificates in Entrepreneurship and Strategic Innovation are satisfactory and should be continued while pursuing the above suggestions and opportunities for improvement.