



- PUBLIC
- INDEPENDENT

**NEW PROGRAM PROPOSAL FOR ROUTINE REVIEW**

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*When finished, please save and email to: [he.academicprogramactions@dhe.mo.gov](mailto:he.academicprogramactions@dhe.mo.gov)*

Sponsoring Institution:

Program Title: Business

Degree/Certificate:

If other, please list:

Options:

Delivery Site: University of Missouri--Columbia

CIP Classification: 52.0304

Implementation Date: Fall 2020

Is this a new off-site location?  Yes  No

If yes, is the new location within your institution's current CBHE-approved service region?

*\*If no, public institutions should consult the comprehensive review process*

Is this a collaborative program?  Yes  No

*\*If yes, please complete the collaborative programs form on last page.*

Please list similar or comparable programs at Missouri public institutions of higher education.

*\*For public institutions only*

While there are other business programs in the state, there are no other programs in the state that adopt a stackable certificates approach. This is a first-of-its-kind program that combines existing programs in a creative, innovative, rigorous, workforce-driven way.

**CERTIFICATIONS:**

- The program is within the institution's CBHE approved mission. *(public only)*
- The program will be offered within the institution's CBHE approved service region. *(public only)*
- The program builds upon existing programs and faculty expertise
- The program does not unnecessarily duplicate an existing program in the geographically-applicable area.
- The program can be launched with minimal expense and falls within the institution's current operating budget. *(public only)*

**AUTHORIZATION**

Name/Title of Institutional Officer	Signature	Date

## PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

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Although all of the following guidelines may not be applicable to the proposed program, please carefully consider the elements in each area and respond as completely as possible in the format below.

Quantification of performance goals should be included wherever possible.

### 1. Student Preparation

- Any special admissions procedures or student qualifications required for this program which exceed regular university admissions, standards, e.g., ACT score, completion of core curriculum, portfolio, personal interview, etc. Please note if no special preparation will be required.  
*Students will be expected to meet regular MU Graduate School admissions standards. In addition, individual certificates might require additional prerequisites. Such requirements will be communicated to prospective students in written and online materials and in person (or phone) by admissions and recruitment staff.*
- Characteristics of a specific population to be served, if applicable.  
*(1) Working professionals who are looking to develop in their current career or to increase their skill-sets to change careers; (2) Current undergraduate students (particularly MU and UM System students) who want to continue with some graduate education; (3) MU and UM System graduates who are looking to expand their skill-sets for current or future jobs, and who trust the University of Missouri brand; (4) Employees of firms with whom we partner to provide graduate education in areas that support their mission (typically St. Louis or Kansas City-based firms). We have started developing these relationships.*

### 2. Faculty Characteristics

- Any special requirements (degree status, training, etc.) for assignment of teaching for this degree/certificate.  
*The Associate Dean for Graduate Programs and Research in the TCoB (Dr. Chris Robert) is responsible for general oversight and coordination of all graduate business programs, including the MS in Business program. As this is a new program, and will require more attention initially, we anticipate that 20-30% of his time will be devoted to ensuring its smooth functioning and success. Day-to-day operations (i.e., recruiting, admissions, student services, advising, career services) will be provided by the Graduate Programs Office (GPO), which is supervised by the Director of Graduate Programs (Jana Stern). Again, given that this is a new program, we expect a high percentage of her time to be devoted to launching and running this program (approximately 40%). Other key individuals will be the Certificate Coordinators, who are the faculty members responsible for overseeing day-to-day decisions about certificate requirements (e.g., making judgement calls for prerequisites, identifying substitute courses, etc.), and for communicating with GPO staff. Each certificate requires a certificate coordinator. The home unit(s) of each certificate are responsible for staffing courses required by each certificate. In the TCoB, we expect that all courses associated with certificates will be staffed by full-time faculty, though occasional use of adjuncts might be necessary to fill temporary gaps.*
- Estimated percentage of credit hours that will be assigned to full time faculty. Please use the term "full time faculty" (and not FTE) in your descriptions here.  
*The home unit(s) of each certificate are responsible for staffing courses required by each certificate. In the TCoB, we expect that all courses associated with certificates will be staffed by full-time faculty, though occasional use of adjuncts might be necessary to fill temporary gaps.*

- Expectations for professional activities, special student contact, teaching/learning innovation.  
*We have estimated an annual \$20,000/year to cover costs of training and travel associated with keeping individual certificates current (e.g., faculty training to learn a new analytical tool, travel to engage in professional development training such as entrepreneurship educators' conferences), and for travel by recruiters to recruiting events such as grad recruiting fairs.*

### 3. Enrollment Projections

- Student FTE majoring in program by the end of five years.  
35
- Percent of full time and part time enrollment by the end of five years.  
Full-time: 43.75%; Part-time: 56.25%

#### STUDENT ENROLLMENT PROJECTIONS

YEAR	1	2	3	4	5
Full Time	10	20	25	30	35
Part Time	15	20	30	40	45
Total	25	40	55	70	80

### 4. Student and Program Outcomes

- Number of graduates per annum at three and five years after implementation.  
Year 3: 45; Year 5: 75
- Special skills specific to the program.  
This program is unique in that, after completing the Business Core certificate, students will have the opportunity to choose additional certificates approved by the curriculum committee that suit their specific interests, needs, and career goals, while providing an experience that is rigorous and coherent.
- Proportion of students who will achieve licensing, certification, or registration.  
n/a
- Performance on national and/or local assessments, e.g., percent of students scoring above the 50th percentile on normed tests; percent of students achieving minimal cut-scores on criterion-referenced tests. Include expected results on assessments of general education and on exit assessments in a particular discipline as well as the name of any nationally recognized assessments used.  
n/a
- Placement rates in related fields, in other fields, unemployed.

*We anticipate that many of our students will be working professionals, and will take courses primarily online. While clean comparison data is hard to acquire, U.S. News and World Report indicates that the average graduation rate for online MBA degrees is 63%. Data from schools in our comparison set tend to be more in the 70% to 90% range.*

*Although, these data are not directly comparable (MS vs. MBA programs), and we anticipate that some students might begin our program with the knowledge that they can walk away with transcriptable certificates even if they do not complete the MS, we will strive to achieve a MS graduation rate of at least*

80%.

*Our primary strategy for student retention and graduation is to maintain personal contact. To connect with those students, as well as students who are completing the degree locally, our student services and advising staff will reach out regularly (e.g., in person, Skype, Zoom, or phone) to advise students and help them manage their enrollment with the goal of completion of certificates and the MS in Business. We will also offer career services counseling in person or remotely.*

*We expect to graduate 45 students at 3 years, and 55 students at 5 years.*

*Because we expect the majority of our students to be working professionals, placement rates are not as relevant as they would be for full-time residential programs. However, jobs for which students taking one or more certificates from the TCoB would be qualified are experiencing high levels of growth (see summary of jobs listed in Section 3.A.1 based on BLS data). As a comparison, our current placement rate for MBA graduates is over 95%. We expect graduates of the MS in Business to find or maintain employment at levels in that range.*

- Transfer rates, continuous study.  
n/a

#### 5. Program Accreditation

- Institutional plans for accreditation, if applicable, including accrediting agency and timeline. If there are no plans to seek specialized accreditation, please provide rationale.

*The TCoB is accredited by the AACSB, which reviews programs on a five-year cycle. The MS in Business degree will be reviewed as part of the TCoB portfolio of programs.*

#### 6. Program Structure

A. Total credits required for graduation: 30 minimum

B. Residency requirements, if any:  
None

C. General education: Total credits:  
N/A

*Courses (specific courses OR distribution area and credits)*

Course Number	Credits	Course Title


D. Major requirements: Total credits: 30 minimum

Course Number	Credits	Course Title
7310	3	Accounting for Managers (7310)
7410	1.5	Managerial Finance (7410)
7210	1.5	Microeconomics for business (7210)
7470	1.5	Adv. Marketing Mngt (7470)
7460	1.5	Managerial Marketing (7460)
7390	1.5	Org. behavior and mngt: Dyadic, group and org processes (7390)
7970	1.5	Intro to Strategic Management (7970)

E. Free elective credits: N/A  
*(sum of C, D, and E should equal A)*

F. Requirements for thesis, internship or other capstone experience:  
 Individual certificates might include capstone experiences or in-residence requirements for completion of the certificate. Prospective students will be informed of any special requirements associated with certificate programs in which they are interested. The MS in Business itself does not have a formal capstone course or experience.

G. Any unique features such as interdepartmental cooperation:  
 In addition to the required 12 CH listed above, students chose one certificate offered by the TCoB, and either a second TCoB certificate, or an approved certificate from another MU College or UM System College of Business.

- 7. Need/Demand**
- Student demand
  - Market demand
  - Societal demand

I hereby certify that the institution has conducted research on the feasibility of the proposal and it is likely the program will be successful.

*On July 1, 2011, the Coordinating Board for Higher Education began provisionally approving all new programs with a subsequent review and consideration for full approval after five years.*

## COLLABORATIVE PROGRAMS

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- **Sponsoring Institution One:**
- **Sponsoring Institution Two:**
- **Other Collaborative Institutions:**
- **Length of Agreement:**
- **Which institution(s) will have degree-granting authority?**
- **Which institution(s) will have the authority for faculty hiring, course assignment, evaluation and reappointment decisions?**
- **What agreements exist to ensure that faculty from all participating institutions will be involved in decisions about the curriculum, admissions standards, exit requirements?**
- **Which institution(s) will be responsible for academic and student-support services, e.g., registration, advising, library, academic assistance, financial aid, etc.?**
- **What agreements exist to ensure that the academic calendars of the participating institutions have been aligned as needed?**

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**University of Missouri - Columbia**

**Master of Science in Business**

**New Graduate Degree Program Proposal**



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## Executive Summary

This proposal details how an **MS in Business** degree can be built around existing and new certificate programs, which can be combined or “stacked” in unique ways to fulfill degree requirements. The concept behind “**Stackable Certificates**” is somewhat new in higher education. The format of the MS in Business degree program, proposed herein by the **Trulaske College of Business (TCoB)** and with cooperation across campus and the UM System, will be unique within higher education. Specifically, we believe it will be the first university program in the nation to provide an avenue for students to combine business certificates, certificates offered jointly by business and another college (e.g., law, engineering), and/or certificates offered by other colleges at MU (e.g., engineering, law, CAFNR, medicine, A&S, etc.) or UM System business schools. In this regard, students can *customize* a degree which is either narrowly focused on business, or is truly *interdisciplinary* with a solid business foundation.

The basic framework for the degree involves **three components**: 1) a required set of *Core Business Foundations* courses offered by the TCoB, perhaps as a certificate, *and* 2) choice of a certificate offered by the TCoB, *and* 3) choice of another certificate offered by the TCoB, OR an approved certificate offered by another college on campus, OR an approved certificate offered by another business school in the UM System. Certificates incorporate a minimum of 12 credit hours of required and elective courses around a single focused theme, delivered at the master’s level using in-seat (on-campus), on-line, or hybrid format. Some of the certificates used to satisfy MS degree requirements already exist, others are currently in development, and others will be added over time to reflect student demand and faculty expertise. We are encouraging units within the TCoB to develop programs in on-line format to improve our ability to attract net new students, and particularly adult learners seeking a graduate degree.

*This proposal focuses on the requested approval for the framework for the MS in Business degree.* Unlike other stand-alone degree program proposals, where the curriculum is clearly established within a single disciplinary framework, the MS in Business (Stackable Certificates) degree allows for unique combinations of existing certificates. As a result, the curriculum, revenue, and cost basis for the program is not straightforward to delineate. However, given that the degree will be comprised of *existing* certificates, and will primarily leverage *existing* resources and infrastructure, the marginal cost to offer the degree will be small.

The landscape of higher education is evolving. Students are expecting easier access to education (e.g., online formats), more micro-credentialing or modular programs, and the ability to customize and choose interdisciplinary programs. The creation of the MS in Business degree will allow us to combine existing resources to evolve with the educational market and to meet these expectations. More generally, increasing our online and certificate-based options will help us *build capacity*, which will allow us to more easily offer programs to corporate partners and international students (e.g., 3 + 1 + 1 programs), and provide additional opportunities for students in existing programs such as our residential, two-year Crosby MBA). In fact, given the changing landscape graduate

education in business, the additional capacity represented by certificates aligned with the MS in Business degree, particularly those offered on-line, will potentially allow MBA students more options in the completion of their degree, thereby strengthening our existing Crosby MBA program through added flexibility. In summary, the MS in Business degree, and the Stackable Certificates approach more generally, will help us meet a number of specific strategic goals in the TCoB, MU, and the UM System. These include:

- 1) Increasing access to Missouri residents, corporate partners, and extending our global reach
- 2) Increasing our graduate degree completions, particularly for online students
- 3) Developing new modular and interdisciplinary programs

## 1. Introduction

### Why the MS in Business “Stackable Certificates” program, and why now?

Trends in higher education, and particularly in graduate-level business education, are moving toward more **flexibility**, **customization**, and more **interdisciplinary** options. At the same time, the proliferation of online programs and for-profit universities raises concerns about program **rigor**. If we want to retain students, and attract new students, we have to design programs that meet these needs effectively, and are backed-up by the quality orientation of MU as Missouri’s flagship university.

*Flexibility* implies that students can complete coursework at a speed that works for them (e.g., part-time while working and/or parenting), and in a place that is convenient for them (i.e., off campus or on-campus). The MS in Business degree will allow part-time students to complete the degree at their pace. In addition, although some programs might offer some certificates and/or some courses on campus, we predict that most certificates will be offered with the flexibility of an online format. Importantly, the stackable certificate approach will allow students to gain transcriptable graduate credentials as they work their way through the program. For example, a student who withdraws from the program after completing a single certificate will still have that certificate transcribed as part of their permanent academic record. This might be particularly appealing (and marketable) to students who are concerned about their ability to complete the full degree, and who want to have something concrete to show for their efforts if they must cut their degree short.

*Customization* implies that a one-size-fits all approach might not appeal to all degree seekers. Although general degree programs such as the MBA typically allow students to take electives for breadth, and specialized masters programs (e.g., MS in Finance) offer considerable depth within a single discipline, the MS in Business will allow students to achieve a high level of depth based on the focused curriculum in the certificates they choose, and also allows a for breadth through the ability to choose very different certificates to include in their degree. The MS in Business degree will allow students to determine a path to the degree that best fits their needs and interests. For example, a prospective student with a bachelor’s degree who is an employee at a financial firm might wish to pursue the MS in Business with certificates in “Investments” and in “Tax” to enable her to better serve existing clients and improve her promotability. Similarly, a student who works as a dispatcher in the office of a trucking firm might want to do some coursework in global supply chain management and dispute resolution (law) in order to help clients craft better processes and to negotiate contracts with those clients. As another example, a current MU undergraduate student in Textile and Apparel Management (TAM) might wish to start his own business, but realizes that his basic business skills are lacking. For him, the MS in Business is appealing because it comes from a school he trusts, the Core curriculum gives him a broad understanding of business, and he can add on graduate certificates in Entrepreneurship and TAM to focus on the specific skills he will need to start his business one day. Finally, another MU student hears about the certificate in Marketing Analytics taught in-seat at MU, and decides to take some of the

classes in her final year in her undergraduate program. She plans to stay an extra semester past graduation to complete the certificate, and plans to go on the job market after that semester. After she gets a job, she will work on completing her MS in Business as a part-time student through on-line options.

*Interdisciplinary* refers to the ability to take coursework from multiple disciplines toward one's degree. The MS in Business will be interdisciplinary in two ways. First, we anticipate that some of the certificates offered through the program will be sponsored jointly by two or more MU Colleges. For example, a Global Supply Chain Management certificate currently under development will be offered by Engineering, Management (TCoB), and CAFNR. Similarly, a certificate in Human Resource Management is being developed that would be jointly sponsored by Management (TCoB) and Law. Second, approved certificates offered by MU colleges outside of the TCoB will be allowed as a component for the degree. We anticipate being fairly *inclusive* in developing the list of non-TCoB certificates allowed for stacking in the MS in Business degree, as we want *students* to determine what best fits with *their* goals.

Finally, *rigor* refers to the quality, challenge, and thoroughness of the program. The flexibility, customizability, and interdisciplinary nature of the MS in Business degree will in no way compromise the rigor underlying each certificate. First, each certificate will be fully vetted through normal campus, system, and state review procedures. At each step in that process, individual certificates should be evaluated for rigor, relevance, and excessive duplication. In addition, at the academic unit level, the units will be responsible for maintaining the academic rigor and relevance of their certificates, including staffing, the determination of any pre-requisites, and monitoring the quality of individual courses. Also, one of the advantages of a certificate-based degree is that because certificates are comprised of a relatively small number of courses (typically just 4-5), the home units for those certificates are not as heavily committed to their continuation as they might be for larger programs (e.g., 30-60 credit hour master's programs). Therefore, decisions to update, discontinue, or replace certificates with more up-to-date and relevant curricula will be easier to make than they would be for full master's programs, because the changes are smaller and less disruptive. Finally, the MS in Business degree program will be overseen by a standing faculty committee (TCoB's Master's Programs Policy Committee), which will evaluate all certificates proposed for inclusion for relevance within the MS in Business framework. Specifically, they will determine whether each certificate can be meaningfully and plausibly combined with the Core curriculum and other business certificates to advance individuals' careers and/or job prospects.

#### Program Success and Administration

Responsibility for the success of the program will be shared among five parties:

- 1) The administration and success of the overall program will lie with the **Associate Dean for Graduate Studies and Research in the TCoB** (Dr. Chris Robert). This includes overseeing the process of including certificates from the TCoB, other colleges at MU, and other business schools in the UM System.

- 2) The TCoB's **standing faculty committee on graduate programs, the Master's Programs Policy Committee**, will a) review all certificates for initial inclusion in the MS in Business framework (i.e., review syllabi, content, learning goals, and potential overlap with other certificates), b) periodically review certificates being offered within the program, as well as courses being offered in the Core, and c) identify and approve new certificates to include within the MS in Business framework.
- 3) The day-to-day operation of the program (i.e., admissions, recruiting, student services) will be overseen by the **Director of the TCoB Graduate Programs Office (GPO)**, Jana Stern. Jana and her staff (three advising and student services staff, four admissions and recruitment staff) will ensure that all materials pertaining to the degree program are up to date in print and online, and will be prepared to answer student inquiries about the program, its costs, and requirements. We believe we currently have capacity to serve the MS in Business degree program, but we will be able to expand these core services by adding staff contingent upon meeting enrollment projections. The Director of the GPO will also work with the Associate Dean and the **Director of Marketing Communications** to develop plans for advertising and marketing the MS in Business degree.
- 4) The GPO will be in close contact with the individuals designated to be the faculty coordinators for their respective certificates. **Faculty certificate coordinators** will help communicate certificate-specific information such as pre-requisites and possible course substitutions to the GPO staff.
- 5) Finally, **academic units and their chairs** will be responsible for their respective certificates. In particular, academic units ensure appropriate staffing of courses, evaluation of learning goals, and make determinations about whether enrollments are sufficient to continue offering certificates.

### Curriculum Overview

We have chosen to include an extensive description of the curriculum here, early in this proposal, because the unique nature of this program requires that the reader understands the basic structure in order to follow the remainder of this proposal. The concept underlying the proposed MS in Business degree is that stand-alone certificates can be combined or "stacked" to fulfill the degree requirements. The basic structure of the degree would involve **3 components**:

1) Core Business Foundations Curriculum: A business "Core" of 12 credit hours (CH) has been designed and approved by Trulaske College of Business (TCoB) faculty to introduce students to graduate-level concepts in each of the primary business disciplines (Accounting, Finance, Management, and Marketing). We also hope to submit this curriculum as an independent certificate that can be taken as a stand-alone certificate pending approval.

AND

2) Business Certificate A: Students would choose a certificate (12 CH minimum, typically 12 or 15 CH) offered by the TCoB, or jointly between the TCoB and another college from a list of certificates designated by the TCoB as eligible for the MS in Business. These certificates will likely include courses that are part of existing or planned MS programs or other curriculum offered in the TCoB, though new certificates can be added to reflect student demand and faculty expertise.

AND

3) Business Certificate B: Students choose an additional certificate (12 CH minimum) from the TCoB list

OR

3) Other College Certificate: The TCoB's Master's Programs Policy Committee will identify and approve a list of certificates offered by other schools and colleges at MU or from business schools within the UM System that are eligible to be "stacked." We expect to be fairly inclusive with this list, as we want to allow students the flexibility to craft a degree as *they* see fit, not as *we* see fit. Students can choose a certificate from this menu. All certificates to be included in this list will have been independently approved by the UM System, and will be available to students independent of the MS in Business degree program.

#### Required Hours

The MS in Business program requires 30 CH minimum (36 CH with up to 6 CH waived—see below). Of the 30 CH, a minimum of 21 hours needs to originate from TCoB courses or courses from certificates jointly offered by the TCoB and one or more other colleges. For example, if the TCoB and College of Engineering jointly offer a 12 CH certificate in Global Supply Chain Management, all 12 hours can count toward the 21 CH minimum. Undergraduate students with any required prerequisites may take graduate level courses to count toward the MS in Business, but will need to pay any program fees associated with those courses.

The Graduate School typically sets a maximum for transfer of graduate credit to 20% of credit hours (effectively 6 CH). There are some programs at MU for which exceptions have been made. With this proposal we are seeking a waiver of this rule such that students who take an approved certificate from one of the UM System business schools be allowed to count all of the credit hours required for that certificate toward the MS in Business degree. Thus, if a student takes a certificate from UMSL, UMKC, or S&T that requires 12-18 CH, the hosting school would confer the certificate, and all hours could be counted toward the MS in Business degree conferred by MU. Students are still held to the 21 CH minimum noted in the preceding paragraph.

## The Core

The “Core Business Foundations” courses have been approved by the faculty, and include 3 CH from each of the TCoB’s four academic departments: Accountancy, Finance, Management, and Marketing. These courses represent graduate level curriculum deemed necessary for an appreciation of fundamental concepts. The specific courses all exist, and all are part of the first year curriculum for the Crosby MBA program. All courses are currently being taught in-seat. In addition, Acct 7310, Fin 7410, and Fin 7210 are available in online format, as they are required courses within the Master of Accountancy (MAcc) and MS in Finance (MSF) programs, respectively. Mktg 7470, Mktg 7460, Mngt 7390, and Mngt 7970 will need to be converted into online versions. Courses include:

- Accounting for Managers (7310, 3 CH)
- Managerial Finance (7410, 1.5 CH)
- Microeconomics for Business (7210, 1.5 CH)
- Advanced Marketing Management (7470, 1.5 CH)
- Managerial Marketing (7460, 1.5 CH)
- Org Behavior and Management: Dyadic, Group, and Org Processes (7390, 1.5 CH)
- Intro to Strategic Management (7970, 1.5 CH)

## Waivers

Students will be able to *waive up to 6 CH* from the Core. However, if the Core is converted into a 12 CH certificate, they would not be eligible to receive the certificate in Core Business Foundations. The degree minimum 30 CH still applies, and students need to complete the minimum number of independent CH for each certificate.

- Students who graduate with an undergraduate degree in business can waive the 3 CH associated with their major/emphasis area (e.g., a finance major can waive Fin 7410 and Fin 7210). This is not a waiver based on completion of a specific course. Rather, the TCoB believes that students who completed an undergraduate major in one of the business disciplines would have already covered the content associated with the 3 CH in the Core in that discipline.
- Students who complete a course from the Core which is *also* included in a certificate as a required or elective course can waive that course in the Core.
- If students wish to complete the Core Business Foundations certificate, as well as two or more TCoB certificates that include Core courses, they can substitute a class from the Core with an elective within the certificate if available (to complete the minimum number of CH required for the certificate), or they can request that a substitute course be offered by the certificate coordinator/department.

## Waiver Examples

- Example A: A student with an undergraduate degree in accounting can waive the 3 CH Accounting for Managers (7310) course from the Core. In addition, if that same student chooses a 12 CH certificate from Marketing that requires completion



of Marketing 7470 and Marketing 7460 (1.5 CH each), they could take those two courses, and count them toward the Marketing certificate (which requires completion of 12 CH), and they would be waived from the Core (i.e., credit hours cannot be double-counted, though the student can use courses to fulfill or waive requirements). Thus, that student would get 6 CH from Core courses, 12 CH from the Marketing certificate, and could then take another 12 CH (min) certificate to complete the degree with 30 CH. If the Core is approved in the future as a stand-alone certificate, this student would have to work with the Core certificate coordinator to identify an additional 6 CH to fulfill the Core certificate requirements.

- Example B: A student wishes to complete the Core Business Foundations certificate (if approved) and takes all 12 CH within the certificate. That same student wishes to take a certificate offered by the Accounting department that requires Accounting 7310. That student can either a) take an available elective offered for that certificate, or b) if no elective is listed, the student can request that an alternative course be identified by the certificate coordinator. If the student takes another 12 CH certificate, that student would graduate with 36 CH, and three transcriptable certificates.

## 2. Fit With University Mission and Other Academic Programs

### 2.A. Alignment With Mission and Goals

#### Campus Goals

In addition to the more general goal of enhancing access to Missouri students as part of our flagship mission, the MS in Business degree program will help meet a number of goals within MU's strategic plan. Most notably, the proposed program is in line with strategies listed under "Goal 1: Increase the annual number of undergraduate, graduate/professional degree programs and graduate credential completions to 10,000 by 2023" (see p. 13 of the plan). One of those strategies is to "**Include stackable certificates,**" and the degree program proposed herein is the first of which we are aware to address this goal and strategy. In addition, the proposed degree represents an interdisciplinary program (both between and within certificates) which is consistent with the Goal 1 strategy of "**Develop new and revise existing interdisciplinary undergraduate and graduate degree programs.**" It is also clearly consistent with the strategy "**Develop structured course pathways toward degree completion for online students.**" We also suspect that MU alumni will be our best recruiting base, and that many alumni will be attracted to our certificates or the full MS program. This is consistent with the strategy "**Increase continuing education opportunities for MU Alumni.**"

#### Trulaske College of Business Goals

The TCoB has recently undergone a strategic planning process. The MS in Business degree program is strongly supportive of the mission, goals, and priorities identified in

our 5-year strategic plan. For example, one aspect of our mission is to “**Attract exceptional students and prepare them for success as global citizens, business leaders, scholars, innovators, and entrepreneurs.**” The MS in Business degree’s focus on *modular education* (one of our strategic priorities) should help us reach new students to whom we have had limited access in the past. It will provide students with educational opportunities in a more flexible, market-adaptable manner. This will be particularly true for certificates delivered in online or hybrid formats, and we anticipate that many certificates within the MS in Business framework will be delivered either in a fully or partially online format. Moreover, the nimble nature of certificate programs (see above) should enable our program offerings to stay on the cutting edge.

Another mission defined by our strategic plan is to “**Activate our teaching, research, and mentorship for emerging learning environments.**” The MS in Business degree is specifically designed to allow us to take a major leap forward in delivering our programs in new ways that meet the needs of today’s students. Finally, one of our strategic priorities is “**Global Engagement.**” The MS in Business degree program, with the majority of programs being offered in online format, will allow us to more easily reach students from across the globe. Moreover, it will enable us to develop capacity in our offerings such that global partnerships with other universities can be developed to offer programs such as 3 + 1 + 1, or 2 + 2 +1, which can leverage our new fully-online BS/BA program.

#### Department Goals

Departments within the TCoB can use the MS in Business platform to provide educational programs that are consistent with the development of their individual strengths. Some certificate programs will be developed from existing or proposed master’s degree programs that capitalize on each unit’s strengths. For example, the Marketing Department has developed strengths in **Sales and Customer Development**, including a center. At the undergraduate level, they have developed a very popular certificate program, and they are developing a proposal for a graduate certificate in Sales and Customer Development. In addition, the Marketing department has an existing in-seat **Marketing Analytics** certificate which will be available to students in the MS in Business degree program. Having some in-seat certificates might allow undergraduate students who are completing their bachelors to begin graduate work while still on campus. The Management department has proposed an **MS in Entrepreneurship and Innovation** degree program as part of their focus on developing teaching and research expertise in that area (including the new Center for Entrepreneurship and Innovation). They, too, will develop one or more certificate programs from existing or proposed coursework in that space. In addition, the Management department (in cooperation with Engineering) has proposed a graduate certificate in **Global Supply Chain Management** which was recently approved by MDHE. Both the School of Accountancy and the Department of Finance have new master’s programs that started in Fall 2018. Both of those units are working on developing certificate programs from their existing course offerings in those programs, or are in the process of removing in-degree designation on their certificates (e.g., **Taxation, Auditing/Assurance, and Investments**).

## **2.B. Duplication and Collaboration Within Campus and Across System**

Because of its interdisciplinary nature, the MS in Business degree would be unique to the TCoB, MU and UM System, and based our research, to higher education more generally.

There will always be some potential for duplication in specific certificates offered by different campuses. The approval process for certificates at the campus, system, and MDHE levels should reasonably be expected to monitor excessive duplication.

That being said, it is important to make two points about duplication:

A) Some graduate degree programs and certificates are duplicated because they are in high demand, are core programs within the discipline (e.g., MBA programs), and/or leverage existing resources on each campus. Also, there is often student demand locally and/or in online platforms that does not necessarily represent cross-campus competition. Some duplication, therefore, is expected and healthy for bringing in students to our campuses who might otherwise go to a non-System campus.

B) One of the potential benefits of the MS in Business framework is that it allows for non-duplicated certificates at non-MU campuses within the UM System to be offered as a certificate to our students. For example, UMKC (Bloch) offers a certificate in Urban Policy Administration that is not offered elsewhere in the system. Similarly, UMSL offers certificates in Digital and Social Media Marketing, and Cybersecurity, and S&T offers certificates in Human-Computer Interaction and User Experience, and Enterprise Resource Planning (ERP) that are not offered at MU. We would like some of these certificates to be made available as options for students to “stack” for the MS in Business degree. We believe this type of certificate sharing within the UM System would help bring net new students to all participating campuses, and would be an effective use of System resources. The TCoB has been in contact with Deans and other administrators at each UM System campus, and will be pleased to continue working with them to identify certificates that could be included within the MS in Business framework.

## **3. Business-Related Criteria and Justification**

### **3.A. Market Analysis**

#### **3.A.1. Need for Program**

Assessing market need for any program requires the compilation of evidence from multiple sources, and cannot be assessed with certainty. That being said, there are many reasons to believe that the MS in Business degree program specifically, and a move toward more micro-credentialing in general (e.g., certificates) will help MU keep up with trends in student demand, employer demand, and the shifting nature of higher education. In this regard, we note the following:

Specific Occupational Trends: To illustrate how the MS in Business would fulfill market need, we note data from the **Bureau of Labor Statistics** (BLS) for a number of

occupational titles that are a close fit with specific certificates that will be included within the Stackables framework. Specific job titles, salary and outlook data include:

- *Operations Research Analysts*: Median salary \$83,390; Job outlook +27% (much faster than average)—supported by “Global Supply Chain Management” certificate
- *Market Research Analysts*: Median salary, \$63,120; Job outlook +23% (much faster than average)—supported by “Marketing Analytics” certificate
- *HR Managers*: Median salary, \$113,300; Job outlook +9% (as fast as average)—supported by “Human Resource” certificate
- *Training and Development Managers*: Median salary, \$111,340; Job outlook +10% (faster than average)— supported by “Human Resources” certificate
- *Financial Analyst*: Median salary \$85,660; Job outlook +11% (faster than average)—supported by “Investments” and/or “Tax” certificates
- *Sales Manager*: Median salary \$124,220; Job outlook +7% (as fast as average)—supported by “Sales” certificate
- *Financial Examiner*: Median salary \$80,180; Job outlook +10% (faster than average)—supported by “Audit” and/or “Tax” certificates
- *Financial Manager*: Median salary \$127,990; Job outlook +19% (much faster than average)—supported by “Investments” certificate

Within this data, it is important to note:

- Salary data indicates that salaries for these illustrative job titles are good to excellent. Additional **data provided by Mizzou Online and sourced from Burning Glass** indicates that there were 559,159 postings that specifically listed a master’s degree in business as a specific educational qualification. The average salary for incumbents in those jobs was over \$93,000.
- Job outlook data (BLS projections through 2026) indicate positive growth in all job categories, and some job titles expect faster or “much faster than average” job growth. Broader **data sourced from Burning Glass** indicates that job categories typically requiring a master’s in business are experiencing at least average growth. Appendix C provides a graph of demand for business masters degrees, which demonstrates a spike in demand over the last year.
- An examination of BLS descriptions of educational requirements for these job titles indicates that bachelor’s degrees are expected, with additional graduate work or a master’s degree being preferred in some organizations for some jobs. This indicates that master’s-level coursework is valued in these job titles, especially for the best jobs and for advancement

Trends in MBA Programs: One important macro-trend in business education is that although demand for graduate business education is stable or increasing, as are the qualifications of applicants (GMAC Application Trends Survey Report 2018), there is declining interest in residential MBA programs that require students to leave lucrative jobs (GMAC report: <https://www.gmac.com/market-intelligence-and-research/research-library/admissions-and-application-trends/2018-mbacom-prospective-students-survey->

demand-for-mba-and-business-masters-programs: WSJ, Oct., 1, 2018; <https://www.wsj.com/articles/m-b-a-applications-keep-falling-in-u-s-this-year-hitting-even-elite-schools-1538366461>). This trend suggests that although MBA programs remain an important reputational feature of the business school landscape, and salaries of MBA graduates are on the rise (BizEd Magazine, April 2018, p. 16), many schools are moving toward more online, flexible, and customizable options, and with more focus on depth of knowledge in emerging areas. In support of this assertion, Alex Hunter (Managing Director, Navigent, and Crosby MBA Advisory Board member) said “As currently configured, I believe the stackable certificate program would be extremely valuable to our students and would help them leverage a more integrated set of disciplines (in a compressed timeframe) while they pursue their respective careers. In the healthcare (consulting) field, as an example, we are consistently seeking candidates who have skills ranging from finance, to data analytics, to health policy, to strategic planning.” We also believe the TCoB’s move toward more specialized business master’s programs (e.g., MSF and MAcc) will help us better serve these students and their changing needs. The proposed MS in Business program will be an especially attractive degree program for students who wish to complete graduate education in a customizable manner. Perhaps *most importantly, the MS in Business degree will allow students to customize their degree in an interdisciplinary manner, which is a novel approach in the current educational landscape.*

Student profiles: GMAC data (<https://www.gmac.com/-/media/files/gmac/research/prospective-student-data/2018-mbacom-prospective-students-survey-mba-and-business-masters-demand-may-2018.pdf>) also suggests that while prospective MBA students begin to consider MBA education about 1 year on average *after* acquiring their undergraduate degree, students who are considering a specialized master’s program begin considering this degree 10 months *prior* to graduating with their undergraduate degree. This suggests that having a master’s program such as the MS in Business in place will enable MU to effectively market to our current students, who are likely to be actively considering master’s degrees.

Alignment with Missouri Workforce Development Plans: The Missouri Chamber of Commerce and Industry has proposed their Missouri 2030 plan, which focuses on statewide and global economic development. An important recommendation within the plan includes broadening the availability of “*stackable credentials*,” particularly in emerging and high-demand fields (see Missouri Business Magazine, Spring 2018, p. 26). The MS in Business degree is fully consistent with this recommendation. Specifically, by focusing on certificate programs that are more focused and more easily developed (and abandoned if no longer economically relevant), the MS in Business framework will allow MU to be more nimble in offering programs to meet changing demands for skills in emerging fields.

Corporate Support- Discussions with Advisory Boards and Survey Results: One of the important indicators of need for business graduate programs is the response from employers. The TCoB benefits from the advice and counsel of over 100 businessmen and businesswomen who serve on our advisory boards, and the stackable certificates idea has been socialized extensively with members of those advisory boards (e.g., Strategic

Development Board, MBA Advisory Board, execMBA Advisory Board, Marketing Advisory Board, Management Advisory Board, and Vasey Academy Advisory Board). Responses by board members have been overwhelmingly positive and enthusiastic. As one example, Lu Alleruzzo (CEO, Immunophotonics, Inc., Crosby MBA Advisory Board Member) said:

“Innovation drives opportunity. The stackable certificate program offers necessary innovation and differentiation with tremendous potential for success.”

Letters of support from Kerry Goyette (President, Aperio Consulting Group) and Steven P. Rasche (Executive VP and CFO, Spire Inc.) echo the strong support we have received for the ideas described herein, and they are appended to this proposal.

In addition, in the summer of 2018 the TCoB surveyed members of our MBA Advisory Board, and our Career Services Advisory board, to get feedback about the value of TCoB potential certificates, certificates completed jointly with other units on campus, or certificates offered by other MU units. Specifically, we listed a number of certificates likely to be included in the program, and asked whether each certificate would a) make applicants to their organizations more attractive, and b) make their current employees more valuable.

There were 18 respondents to the survey. The results strongly suggested that the following existing or potential future certificates (offered by TCoB unless otherwise noted) would make applicants more attractive, and current employees more valuable. These are presented for illustrative purposes.

- Marketing Analytics
- Sales and Customer Management
- Entrepreneurship and Innovation
- Human Resource Management/HR Law (TCoB & Law)
- Global Supply Chain Management (TCoB & Engineering)
- Engineering Management (TCoB & Engineering)
- Investments
- Audit
- Taxation
- Organizational Consulting and Change (Public Affairs)
- Leadership (Journalism & TCoB)
- Data Science and Analytics (Data Science)
- Public Health (School of Health Professions)
- Informatics for Public Health (Medicine)
- Health Informatics (Medicine)
- Life Science Innovation and Entrepreneurship (TCoB, Medicine, Engineering)

Net New Students: Because many of the anticipated offerings within this framework will be available in online format, we expect that we will be serving net new students. In particular, we expect to attract students from these categories (and their overlap):

- Working professionals who are looking to develop in their current career or to increase their skill-sets to change careers
- Current undergraduate students (particularly MU and UM System students) who want to continue with some graduate education
- MU and UM System graduates who are looking to expand their skill-sets for current or future jobs, and who trust the University of Missouri brand
- Employees of firms with whom we partner to provide graduate education in areas that support their mission (typically St. Louis or Kansas City-based firms). We have started developing these relationships.

Cross-Disciplinary Collaboration: Realistically, many of the topic areas in which certificates may be developed can or should involve cross-disciplinary coursework (e.g., entrepreneurship, analytics, global supply chain management, human resource management). Because certificates are more tightly focused credentials, it is easier to develop and maintain interdisciplinary certificate programs that require, for example, two courses to be taught by each of two academic units. Thus, certificate programs should encourage the development of more cross-disciplinary program offerings, which might be particularly attractive to students. Such collaborations might also spill over into better cross-disciplinary relationships and research collaborations.

Increasingly Nimble Program Offerings: A certificate-based program will allow the departments that contribute certificates to be more flexible and nimble in response to changing market pressures. Specifically, as students' demands for programs change over time, it is much easier to add certificate programs that are in demand, or to delete programs that are no longer drawing students, than it is to add or delete larger programs. For example, MS programs require a minimum of 30 credit hours (CH) of coursework, but developing and maintaining them requires a substantial commitment of faculty time and resources (i.e., typically courses and oversight by at least 5 faculty members). Thus, departments with MS programs that are losing student markets will likely be slower to adapt to a changing student demand landscape due to inertia, as it will require a substantial redeployment of faculty teaching resources. In contrast, a 12 CH certificate program could be maintained with contributions of as few as 2 faculty members, and therefore, decisions to abandon programs could be made more quickly and with less disruption.

### **3.A.2. Student Demand for Program**

Capacity Building and Multiple Enrollment Options: Although this proposal seeks approval for the framework for an MS in Business degree, it is important to point out that the MS degree itself is just one option we could offer students once the TCoB and other colleges develop capacity to deliver tightly focused and contemporary graduate certificates as credentials. We want to attract students to MU to complete the degree, but once we build *capacity* to deliver the MS in Business degree, there will be multiple avenues for delivering those courses and credentials to students. These include:

- Full-time completion of the MS in Business (i.e., one year)
- Part-time completion of the MS in Business
- Completion of stand-alone certificates
- Delivery of certificates or individual courses to corporate partners (perhaps customized by contract for delivery)
- Integrating or offering certificate courses within existing degree programs (e.g., Crosby MBA, execMBA)
- Use of courses or certificates to offer global educational programs (e.g., 2 + 2 or 3 + 1 + 1 programs)
- Use of courses or certificates to offer 4 + 1 programs to current MU students.

Value of the “Core” to Non-MS in Business Students: We anticipate applying for certificate status for the 12 CH Core Business Foundations curriculum. This certificate might be highly valuable on its own, outside of the MS in Business framework. Specifically, because it provides graduate-level coursework aimed at introducing students to the practical applications of the major business functions (i.e., accounting, finance, marketing, and management) it represents an excellent option for students completing other graduate programs to gain broad working knowledge of business concepts that they can take to careers in other disciplines (e.g., medicine and health sciences, journalism, agriculture, law, etc.).

Professional Science Masters (PSM): The Core Business Foundations curriculum can also be used for Professional Science Masters (PSM) programs currently being considered by units on campus (e.g., Veterinary Medicine). PSM programs typically require students to complete a broad core of business curriculum, and the Core Business Foundations certificate represents that well.

Low Cost -> Low Risk: Predicting student demand with any accuracy is extremely challenging for any new program. Programs seldom have documented pent-up demand for a new program, whereby a regular source of students is assured. For the MS in Business this is particularly true, given the fact that the framework being proposed is completely novel, meaning that comparable data on enrollments for similar programs at other similar universities is unavailable. As we have outlined above, we believe the proposed MS program is consistent with market trends toward more micro-credentialing, the attractiveness of on-line education, and the ability to deliver up-to-date education. In addition, data from the BLS (see section 3.A.1 above) demonstrates that many of the job categories for which TCoB certificates would make students more qualified are in high demand and are highly paid, and our industry partners view the certificates we plan to offer as making applicants and current employees more valuable. Moreover, approval of the MS in Business degree will provide a framework within which the TCoB and other units on campus will build capacity that can allow for various forms of full-time, part-time, and global delivery.

However, a key point to stress is that although actual enrollments are difficult to predict, **the resources to deliver the program are largely in place, and the MS in Business**



**degree can be offered largely through existing resources.** Some of the existing resources that would be leveraged include:

- Curriculum from existing programs will be used, in many cases without adjustment, to deliver courses and certificates. This includes certificates that already exist and are being offered (both in the TCoB and around campus and UM System). In other cases new certificates can be offered by re-packaging existing resources (e.g., converting courses offered in the Crosby MBA program into online courses) with minimal up-front investment.
- The TCoB's Graduate Programs Office (GPO) is fully staffed and can take primary responsibility for recruiting, admissions, student services, instructional technologies, and career services. We anticipate that current staffing levels will be adequate until the program's enrollments start to grow beyond 60 students. At that point, growing revenues will easily offset costs of hiring additional staff to support increased applicant and student flows.
- In order to meet requirements of our accreditation body (AACSB), the TCoB is working on a plan supported by the Provost to hire at least 12 net new tenure-track faculty members over the next few years to achieve more favorable student/TT faculty ratios. These faculty hires will be aligned with our strategic plans, which are in-line with our existing masters programs (e.g., MS in Finance, MAcc) and planned new MS and certificate programs (e.g., entrepreneurship, global supply chain management, sales and customer development). Therefore, the TCoB will have increasing teaching capacity and expertise that will be in-line with certificate programs.
- Many of our partners around campus and the UM System have existing certificates that will be included within the MS in Business framework. We hope the MS in Business degree and associated marketing efforts will bring more student traffic to MU and the UM System, and increase enrollments in all of our existing programs.

In summary, although this new degree program will require some investments (see pro forma spreadsheet in the Appendix), **most of the resources needed to deliver this program are already in place.** We anticipate that students joining this program will be primarily net new students attracted to the new program format, and we do not anticipate that this program will take students from other programs (which is why our estimates in Table 1a and 1b are identical). For Table 1c, we used full-time enrollments plus the previous year's part-time enrollments to estimate degrees awarded.

**Table 1a. Student Enrollment Projections (anticipated total number of students enrolled in program during the fall semester of given year).**

Year	AY21	AY22	AY23	AY24	AY25
Full-Time	10	20	25	30	35
Part-Time	15	20	30	40	45
Total	25	40	55	70	80

**Table 1b. Student Enrollment Projections (anticipated number of students enrolled during the fall semester of given year who were new to campus).**

Year	AY21	AY22	AY23	AY24	AY25
Full-Time	10	20	25	30	35
Part-Time	15	20	30	40	45
Total	25	40	55	70	80

**Table 1c. Projected Number of Degrees Awarded**

Year	AY21	AY22	AY23	AY24	AY25	AY26	AY27	AY28	AY29	AY30
# of Degrees Awarded	10	35	45	60	75	85	95	100	100	100

### 3.B. Financial Projections

Our financial projections are detailed in the pro forma excel file (see appendix). After consulting with staff in the UM Academic Affairs office, we decided not to include the sensitivity analysis due to the fact that we are projected to earn net revenues quickly (and thus our ability to achieve positive revenues is not very sensitive to even sizable deviations from projections). In addition, we have built in a 20% overhead allocation (20% of revenues) to approximate the program's share of overhead costs to campus.

#### 3.B.1. Additional Resources Needed

A) Faculty Salaries: Faculty costs associated with faculty required for the MS in Business program are associated with the courses offered to deliver the Core curriculum. Although 3CH is already scheduled to be taught in the MAcc program each Fall semester, we anticipate needing to staff the additional 9 CH in the Fall semester, and all 12 CH in the Spring semester (i.e., 7 course sections) so that every Core class will be offered every semester. Our average NTT faculty salary is \$91,000, and using 10% as a 3 CH allocation of a faculty member's salary based on our workload distribution model, that is \$9,100 per 3CH course, or \$63,700/year.

Two things to note regarding faculty costs. 1) Many of our certificates will be developed from existing (or planned) master's programs, and will not incur additional costs assuming sufficient course capacity. Other additional certificates that are added must go through the departmental/college, and MU Campus and System approval processes, in

which additional costs such as instructional costs must be justified. Therefore, we are not including certificate-level instructional costs (beyond the Core) in our pro forma. 2) The TCoB is planning on hiring 12 net new faculty over the next 5 years to grow our faculty to more normative levels and to meet our accreditation standards (AACSB: Association to Advance Collegiate Schools of Business). Our faculty size, as indexed by student/faculty ratios, is very small relative to regional universities, SEC schools, AAU schools and peer aspirant school. This growth needs to occur regardless of any specific new programs we will add. However, we anticipate being able to use much of the additional instructional capacity to staff courses in new graduate level certificate and MS programs as they come on-line over the next 2-5 years.

B) Course Development: Units/departments that offer courses and/or certificates that fall under the umbrella of the MS in Business degree are responsible for developing the courses and certificates, the relevant approval process, monitoring quality, and faculty staffing. However, most of the curriculum from the TCoB that will fall under the MS in Business umbrella is either already developed, or is well into the development process. For example, the TCoB currently offers the MSF and MAcc degrees, and Finance and Accountancy will develop one or more certificates from each of those degrees. Similarly, the Management Department has developed an MS in Entrepreneurship and Innovation (MS E&I; currently under review), and is in the approval process with a graduate certificate in Global Supply Chain Management (in cooperation with engineering). The Marketing Department is developing a certificate in Sales and Customer Development. We expect the MS E&I program to also deliver one or two stand-alone certificates. These new programs are developed largely from existing courses, though some courses will need to be created or converted to on-line formats, in addition, four 1.5CH courses offered in the Core, exist in in-seat formats and will have to be developed in an on-line format.

We have included \$60,000/year for three years (year zero, year one, year two) to pay course development stipends to faculty. This includes new course development or conversion of existing courses to online formats (approx. \$5,000/course). We have also included FICA (7.65%) with those stipends, though we understand that these types of overload payments are not subject to regular benefit rates. We anticipate incurring more of these expenses early, as the program ramps up to our full complement of certificates offered by the TCoB. Thereafter, we have included \$40,000/year to account for significant course changes or new courses as the certificates adapt to market changes (e.g., new developments in analytics software might require new coursework to be developed or adapted).

With regard to certificates from other colleges on campus or in business schools within the UM System, we expect that they will contribute certificates that currently exist. Thus, there will be no development costs associated with those certificates. If units outside of the TCoB wish to develop stand-alone certificates that can be included within the MS in Business framework, they will be responsible for identifying resources to develop and cover courses.

C) Support Salaries: Day-to-day costs of program administration involve staffing and supervision of recruiting, admissions, student support services, instructional support, and career services functions. In the last year, the TCoB has re-organized its staff support for those functions in the MBA and execMBA programs into a single Graduate Programs Office (GPO). This was done to provide service and support for our new MAcc and MSF programs, and in anticipation of future programs (including the proposed MS in Business). We believe that the GPO has the capacity to absorb some additional workload that will be required by the addition of the MS in Business degree program. However, we have budgeted for an additional support staff member (\$60,000 + benefits) for each 30 new students after the first 50 (i.e., one new staff member in year 4 and an additional new staff member in year 6, contingent on meeting enrollment projections). In addition, we have budgeted for a full-time marketing communications staff member (\$70,000 + benefits) to support the advertising and marketing efforts associated with the MS in Business. We anticipate initiating our marketing campaign in year zero using existing TCoB marketing communications and GPO staff.

D) Computing Expenses: Costs for computing (computers, software, printing, support) associated with hiring additional staff are estimated at \$4,000 each time a new staff member must be added to account for enrollment growth (contingent upon meeting enrollment projections), and for the additional marketing communications staff member. Updates are made every 4 years. So, \$4000 is incurred in Year 1 for the new marketing communications person, and in Year 5 for that person's system update, and in Year 4 and Year 6 as we add additional staff to service additional enrollment.

E) Supplies: We anticipate \$50/year/person for incidental supplies costs. Addition of a marketing communications person in year 1, and additional GPO staff members in years 4 and 6 accounts for supplies costs increasing to \$150 over the period.

F) Travel and Training: We have estimated an annual \$20,000/year to cover costs of training and travel associated with keeping individual certificates current (e.g., faculty training to learn a new analytical tool, travel to engage in professional development training such as entrepreneurship educators' conferences), and for travel by recruiters to recruiting events such as grad recruiting fairs.

G) Marketing: Assuming program approval by January 2020, we anticipate marketing efforts to be conducted from January to June, 2020. We have budgeted \$50,000 for that six month period (in year zero) to promote the new program. In subsequent years, we anticipate a year-round marketing budget of \$100,000, which is approximately what we spend to market our current execMBA program. Of course, we will take advantage of opportunities to cross-sell by marketing multiple masters-level graduate programs on some platforms.

H) Other Expenses: We do not anticipate and did not include estimates for other expense items on the pro forma, such as noncapital maintenance and repair, noncapital equipment, or professional and consulting expenses.

### 3.B.2. Revenue

#### Revenue Model

**Student costs associated with the program will be tied to the courses and certificates they choose**, which are tied to the home programs or degrees through which those courses are offered. For example, if a student chooses a certificate comprised of courses offered in the MSF or MAcc programs, the costs will be the same as those associated with the home degree (i.e., graduate tuition, IT fee, TCoB graduate fee, and program/differential fee). Similarly, if a student takes courses/certificates offered by non-TCoB programs, they will pay approved costs already associated with those courses/certificates. If future certificates are developed from combinations of courses from different colleges, with different cost structures (i.e., different program fees), **students will pay by the course according to the cost structure of the home program.**

Revenues will flow to the home programs as they normally would, regardless of whether a student has declared as an MS in Business student. **The TCoB will not seek any share of revenues generated by students taking courses outside of the TCoB.** The TCoB will absorb costs associated with management and administration of the MS in Business degree program. We anticipate that additional revenues associated with courses taken through the TCoB will be sufficient to cover costs of management, administration, and marketing of the degree program.

For our pro forma estimates, we had to make a number of assumptions, which we outline here:

- A) We calculated estimates for tuition and fees based on 30CH, which is the minimum for the program. Although many students will likely take more CH than the minimum, we wanted to be conservative.
- B) Because the instructions for the full proposal specify that only revenues accruing to the home program should be estimated, we calculated estimates based on full- and part-time students completing only certificates offered by the TCoB (and composed only of TCoB courses). While we anticipate that some students will complete the MS in Business in this manner, other students will complete the degree by completing one certificate offered by another college at MU, or another UM System business school. In addition, some certificates will be offered jointly by the TCoB and another college (e.g., Law, Engineering), and so revenue from courses that students take through another college will flow to that college and not the TCoB.
- C) **We do not estimate revenues to be received by other colleges (nor costs).** However, we believe that our MS in Business program will increase the net inflow of students to the MU campus and to UM System business certificate programs, and thereby the number of students completing non-TCoB certificates. Because those programs are not contributing to the MS in Business administrative and marketing costs, other units should incur very little cost for the added revenue. For example, if a certificate program in Education is currently getting 20 students per year, and we can increase that by 5 students who were attracted to the

certificate by our marketing efforts, those additional students would bring in about \$33,000 in revenue (tuition and course fees for a 15CH certificate), assuming there is capacity in the courses for the additional students. An additional 5 students in an Engineering program would raise about \$67,000 in additional revenue (due to their higher course and differential or “program” fees).

- D) In the Appendix we have listed a number of “Sample Programs” that represent possible combinations of certificates and Core courses to illustrate a range of cost structures and CH for students.

### 3.B.3. Net Revenue

We have budgeted conservatively for significant expenditures for course development, a marketing communication staff member to focus on the MS in Business, a substantial marketing budget, travel and training, and additional staff contingent upon reaching enrollment goals. Combined, these costs represent about \$370,000-\$430,000 over the first 5 years of the program. These costs are small relative to potential revenues because we will be able to deliver the program using existing administrative and faculty resources. Therefore, financial viability will be achieved with relatively low numbers of students. Although the nature of the program’s various paths and their variable revenue implications makes an exact break-even point difficult to estimate, our pro forma estimates demonstrate that revenues would exceed expenditures by about \$100,000 in year 1 of the program, with just 10 full-time (i.e., 30CH/year) and 15 half-time students taking TCoB certificates and the Core curriculum. This number could be slightly lower if students complete a program requiring more than 30CH, and slightly higher if students take one certificate outside the TCoB or certificates jointly offered by the TCoB and another college (i.e., split revenue). However, we feel that this is a fairly conservative level to set as financial viability.

### 3.B.4. Financial and Academic Viability

It is important to stress that **each unit offering a certificate as part of the MS in Business degree needs to determine its own financial and academic viability. Each certificate included in this framework has already received approval, or will receive approval prior to being included as an option within the degree framework.** The approval process for a certificate involves consideration of costs of delivery and revenue projections for each certificate individually, and is currently done at the college level by Deans, curriculum committees, and by faculty approval, and at the university level by the Graduate Faculty Senate (at MU, and parallel processes on other campuses). Each level should determine the viability of the program based on available resources (e.g., expertise), relevance within the job market, and duplication or overlap with other programs. Therefore, it is incumbent on the University, MDHE, and each unit or college to determine whether a given certificate is likely to be financially and academically viable. Depending on the unit’s cost and revenue structure, this will often be 10-15 full-time students. Importantly, if a given certificate is not reaching those numbers, and that certificate is discontinued, it can have a minimal impact on the MS in Business degree. In fact, **one of the elegant features of this degree program is that it will encourage academic units to discontinue certificates that are no longer financially or academically viable, and to redeploy resources to certificates or other programs that**

are in higher demand and leverage existing faculty strengths without having to design an entire degree program. This will be particularly true under the new revenue model, effective Fall 2020, which will provide strong disincentives to continue programs that are not financially viable for their home departments, as the departments will bear the brunt of the costs.

For the sake of thoroughness, we also wanted to address the issue of maximum capacity. Maximum capacity will be based on a) the success of individual certificates and the maximum capacity their home units' identify (i.e., ability to deliver courses with available instructional resources, and their willingness to open additional course sections if qualified applications exceed course capacity: this is a unit-level decision), b) the number of viable certificates included within the program, and c) our ability to provide enough capacity in sections in the Core curriculum. Of these, c) is the most significant bottleneck because all students would have to take these courses. Our plan is to offer all Core courses in the fall and spring semesters, with enrollment caps of approximately 50 per semester. If enrollments are strong, and additional sections of those Core courses are required, new faculty will have to be brought on to cover those courses. Although it is difficult to anticipate the point at which the program's size might become too large from an administrative and/or teaching/staffing standpoint (as some efficiencies of scale would certainly be possible), 500 full-time equivalent students would be a reasonable estimate. Beyond that point, we feel that the number of additional staff and faculty needed to serve the MS in Business program might get too cumbersome in terms of space, administration, and the need to ensure that a high percentage of our student credit hours are being taught by tenure-track faculty (in order to meet AACSB accreditation standards). A soft cap of 500 would also allow us to maintain high quality of students at admission, and would also protect against the need to reduce staff if enrollments declined in the future.

**Table 2**  
**Enrollment at the End of Year 5 for the Program to Be Financially and Academically Viable.**

**\* Academic viability should be determined at the level of the certificate and its home unit(s)**

<b>Viability</b>	<b>Minimum Enrollment</b>
<b>Financial</b>	<b>10 FT, 15 ½ time</b>
<b>Academic</b>	<b>10-15*</b>

### **3.C. Business and Marketing Plan: Recruiting and Retaining Students**

#### **Marketing Strategy**

The TCoB's Graduate Programs Office and Marketing Communications Office will jointly handle marketing/advertising and recruiting functions for the MS in Business degree. As appropriate, some of these marketing efforts will focus on the MS in Business specifically, and others will highlight the whole line-up of graduate programs offered by the TCoB (i.e., MBA, execMBA, MAcc and MSF). As noted in our pro forma, we intend on hiring a full-time marketing communications person to work on the marketing this program.

#### **Events**

In an effort to promote, attract and enroll quality students into Trulaske graduate masters and graduate certificate programs, the GPO will incorporate program and application information for all degree offerings at each admissions event, including but not limited to:

- A. Career Fairs
- B. Alumni Events
- C. Information Sessions (both on-campus and via webinar)
- D. execMBA events
- E. On-campus events

#### **Advertising**

A combination of both print and digital media advertising will be coordinated through the TCoB's Marketing Communications team. Traditionally, these have included:

1. Online Advertising
  - a. Google Ad Word Search
  - b. LinkedIn
  - c. Gmail
  - d. Online search directory program descriptions in paid professional membership's websites such as GMAC- degree finder, Executive Connections etc.
  - e. Website revamp with E-brochure/fact sheet that can be downloaded from program website after lead entry information is captured
2. Print Media
  - a. Mizzou alumni magazine (Fall/Winter/Spring)
  - b. St. Louis Business Journal
  - c. Surveys and Rankings submissions (USNWR, Bloomberg Businessweek, Poets & Quants, Financial Times etc.)
  - d. Fact Sheets distributed at all information sessions, and interviews



- e. Press releases and articles in local newspapers (see Columbia Missourian article that ran on December 1, 2018)

#### Other Recruiting and Marketing Avenues

1. GMASS purchased lists (offered through the Graduate Management Admission Council) for lead generation
2. LinkedIn—Consistent Messaging with premier membership
3. Facebook Posts – TcoB, GPO and BCS
4. Promotion across all graduate degree programs for on-campus and corporate partner site
  - a. Specific information sessions catering to online programs bi-monthly via Zoom
5. College and University level newsletters and academic advisors' forum distribution lists
6. Promotion to local employers
  - a. Veterans United
  - b. Missouri Employers Mutual
  - c. State Farm
  - d. Shelter Insurance
  - e. American Outdoor Brands

**Table 2. Financial Projections for Proposed Program for Years 1 Through 5.**

	FY 21	FY 22	FY 23	FY 24	FY 25
<b>1. Expenses per year</b>					
<b>A. One-time</b>					
<i>New/Renovated Space</i>					
<i>Equipment</i>	4000			4000	4000
<i>Library</i>					
<i>Consultants</i>					
<i>Other</i>	50	50	50	100	100
<b>Total one-time</b>	4050	50	50	4100	4100
<b>B. Recurring</b>					
<i>Faculty</i>	123700	123700	103700	103700	103700
<i>Staff</i>	70000	70000	70000	130000	130000
<i>Benefits</i>	52214	52214	50684	72056	72056
<i>Equipment</i>					
<i>Library</i>					
<i>Other</i>	120000	120000	120000	120000	120000
<b>Total recurring</b>	365914	356914	344384	425756	425756
<b>Total expenses (A+B)</b>	369,964	365,964	344,434	429,856	429,856
<b>2. Revenue per year</b>					
<i>Tuition/Fees</i>	482,475	827,100	1,102,800	1,378,500	1,585,275
<i>Institutional Resources</i>					
<i>State Aid -- CBHE</i>					
<i>State Aid -- Other</i>					
<b>Total revenue</b>	482,475	827,100	1,102,800	1,378,500	1,585,275
<b>3. Net revenue (loss) per year</b>	\$112,511	\$461,136	\$758,366	\$948,644	\$1,155,419
<b>4. Cumulative revenue (loss)</b>	\$112,511	\$573,647	\$1,332,013	\$2,280,657	\$3,436,076
<b>Cumulative after year zero investment of \$134,590</b>	(\$22,079)	\$439,057	\$1,197,423	\$2,146,067	\$3,301,486

**Table 3. Enrollment at the End of Year 5 for the Program to Be Financially and Academically Viable.**

<b>Enrollment Status</b>	<b>Full-Time</b>	<b>Part-Time</b>	<b>Total</b>
<b>Number of Students</b>	<b>10</b>	<b>15</b>	<b>25</b>

#### **4. Institutional Capacity**

As noted previously, we believe that the MS in Business degree can leverage existing resources to provide the degree at relatively low cost. Putting the MS in Business degree in place will give us a framework that can make tightly-focused certificate programs more viable, visible, and marketable than they would be individually. Although there will be some investment needed, and a relatively small number of students will be required to cover those costs, we view this new program as a small risk for a potentially high reward rather than as a substantial burden on our resources. In fact, we believe it will enable us to BUILD institutional capacity in a number of important ways:

- Identifying a small number of certificates to be offered by each unit (or jointly) will enable those units to leverage existing expertise more effectively by allowing faculty to teach in their specialty areas.
- Offering one or two certificates per unit will help the TCoB focus on strategic areas in which we want to build expertise for both research and teaching missions. Faculty are attracted to institutions where they can have colleagues who share interests, and where they can teach within their expertise area.
- Because many of the certificates to be offered will be online, we believe that most of our students will be net new to MU and the TCoB. Our current Crosby MBA and execMBA programs are in-seat and hybrid, and therefore are not likely to be cannibalized by the new MS in Business degree.
- Nonetheless, if the MS in Business framework creates new degree programs and on-line courses, those courses can be made available to current students, either as electives, or potentially as add-on certificates to give those students added depth in their program.
- Having the framework for the MS in Business and viable certificates helps us build capacity for potentially entering into partnerships with other educational institutions (e.g., international universities) and with businesses.

On the student side, we are confident that the marketing efforts we have planned will enable us to well exceed the small number of students required for financial viability. Reasons for optimism include:

- Industry facing experts to whom we have vetted these ideas extensively (e.g., members of multiple TCoB advisory boards) see strong potential in the program, and view it as innovative.
- Experts surveyed indicated that the certificates we will likely offer would a) make applicants for positions to their organizations more valuable, and b) make their existing employees more valuable

- Conversations with multiple major corporate partners have suggested that those partners are interested in discussing agreements for sponsorships of larger groups of students (their employees)
- The market for graduate education is strong, but is shifting toward more specialized options, and toward more on-line offerings
- The TCoB gets frequent inquiries about on-line graduate programs for students seeking graduate business education. The MS in Business would give us many more options for capturing those inquiries, whereas currently we only have the recently added MS in Finance and MAcc programs on-line.
- We hope to be the first school, let alone major university, into this market space, giving us a first-mover advantage for marketing customizable and interdisciplinary certificate options.
- While we hope to stimulate more student applications to other colleges and UM business schools, we will also benefit from the reputation that other units have built around their quality programs over a longer time period.

## **5. Program Characteristics**

### **5.A. Program Outcomes**

Students have many possible options for completing the MS in Business by choosing two or more certificates beyond the Core Business Foundations courses. However, we want all students to have a solid foundation in the four primary business disciplines through the 12 CH Core. The Core curriculum is less extensive than the required courses for the full MBA degree, but overlaps substantially with that curriculum and was designed by the faculty to provide necessary breadth for an individual who wants to pursue a career requiring broad business knowledge. Beyond the Core, the learning outcomes are defined by the learning outcomes identified by the departments or colleges who designed the certificates.

More generally, though, this program is designed to allow students to identify the educational path that best suits them, with their unique learning and career goals. We expect that students will chose a path that either helps them develop and grow in their current career path, or allows them to change career paths. Many of these careers likely have roots in disciplines outside of business (e.g., journalism, engineering, medicine, law), and therefore the ability to choose an interdisciplinary path should assist students in defining a program that best fits their academic needs, and is rigorous with respect to business foundations.

### **5.B. Structure**

We detailed the structure of the program in the Introduction (Section I.) in order to ensure that the reader understood the program's basics, and could follow the remainder of this proposal. Please refer to Curriculum Overview in the Introduction.

### **5.C. Program Design and Content**

The Core Business Foundations curriculum was identified from the core of required courses that have been developed for the Crosby MBA program. Faculty from each of our four units chose 3 CH that they felt was the most foundational for their area. In some cases, this involves two 1.5 CH courses. As noted previously, all certificates to be included in the menu of choices are independently developed by units, and must undergo the usual approval process for certificates. The TCoB Master's Program Curriculum Committee, a standing faculty committee, will be charged with identifying and approving all certificates for inclusion in the MS in Business framework, including both certificates offered by other colleges at MU, and certificates offered by other UM System business schools.

### **5.D. Program Goals and Assessment**

#### Assessing Learning Outcomes

Learning outcomes for certificates will be assessed at the level of the certificate. For certificates offered by the TCoB, certificate coordinators, in consultation with unit faculty, will identify key assignments, exams, projects, or other milestones throughout the certificate curriculum that provide important assessments of the skills, knowledge, or abilities identified as central to learning goals identified for the certificate. Standards for student performance (e.g., percentage of students achieving test scores indicating mastery, demonstrated competence in oral presentations, grades on written work, etc.) will be identified. These procedures are consistent with the AACSB guidelines that govern our accreditation process. Each certificate program will be responsible for developing their own assessments.

For the Core curriculum, courses were chosen to give students practical knowledge and skills within the four major business disciplines: accounting, finance, management, and marketing. Students who successfully complete these courses will understand and be able to communicate effectively about:

- Financial management and managerial accounting practices that help facilitate decision making in organizations
- How consumer behavior influences supply, demand, and pricing of goods
- Principles of capital budgeting, risk measurement and valuation of securities
- Concepts, theories, and tools for the understanding marketing situations and executing marketing initiatives
- Marketing planning, strategic and tactical decision making, and how they influence marketing mix decisions
- Factors effecting behavior in organizations and how to manage people
- How to set a direction for an organization's activities, and implementing strategies to align and integrate various functions (i.e., marketing, operations, finance, research and development, HR, etc.)

Examples of other learning outcomes are described below for an Auditing/Assurance certificate, and for a Tax certificate:

The **graduate certificate in auditing/assurance** is a combination of one required course on Auditing and four additional electives. Required coursework focuses on the theory and application of auditing. Electives allow a student to explore various areas of assurance. Learning objectives for the assurance certificate include the ability to understand and communicate effectively about:

- The theory of audit and how it applies to assurance for an interested party on an entity's financial statements.
- The basic financial statement assertions and the ways to test each financial statement line item to meet those assertions.
- Sampling methodology.
- The internal audit function and methodology used in internal audit.
- Design and implementation of internal controls and the audit and tests to provide assurance around these controls.
- Advanced auditing concepts, as applied to a variety of contexts in public and corporate accounting.
- Introduce concepts and techniques of fraud examination and forensic accounting.
- The use of data analytics and Big Data technologies as they relate to the audit function.

The assurance certificate is ideal for those desiring a career in any area of Audit/Assurance in public or corporate accounting settings, with jobs being plentiful in these areas.

The **graduate certificate in taxation** is a combination of three required courses and two additional electives. Required coursework focuses on federal taxation at both the individual and corporate level as well as tax research. Electives allow students to explore various areas of tax specialty and thus broaden their understanding of various components of taxation. Learning objectives for the taxation certificate include the ability to understand and communicate effectively about:

- Basis of calculation and preparation of returns for individual federal tax liability according to the most recent U.S. tax laws.
- Basis of calculation for corporate federal tax liability according to the most recent U.S. tax laws.
- Taxation as it relates to various business entities (corporations and partnerships) and how tax law can be applied to various situations such as mergers and acquisitions using both written and verbal communication in a clear and concise manner.
- Difference in tax laws between a variety of jurisdictions including but not limited to state, local, and international taxation.

The taxation certificate is ideal for those desiring a career in any area of Taxation in public or corporate accounting settings, with jobs being plentiful in these areas.

### Retention, Graduation, and Career Placement Goals

We anticipate that many of our students will be working professionals, and will take courses primarily online. While clean comparison data is hard to acquire, U.S. News and World Report indicates that the average graduation rate for online MBA degrees is 63%. Data from schools in our comparison set tend to be more in the 70% to 90% range. Although, these data are not directly comparable (MS vs. MBA programs), and we anticipate that some students might begin our program with the knowledge that they can walk away with transcriptable certificates even if they do not complete the MS, we will strive to achieve a MS graduation rate of at least 80%.

Our primary strategy for student retention and graduation is to maintain personal contact. To connect with those students, as well as students who are completing the degree locally, our student services and advising staff will reach out regularly (e.g., in person, Skype, Zoom, or phone) to advise students and help them manage their enrollment with the goal of completion of certificates and the MS in Business. We will also offer career services counseling in person or remotely.

We expect to graduate 45 students at 3 years, and 55 students at 5 years.

Because we expect the majority of our students to be working professionals, placement rates are not as relevant as they would be for full-time residential programs. However, jobs for which students taking one or more certificates from the TCoB would be qualified are experiencing high levels of growth (see summary of jobs listed in Section 3.A.1 based on BLS data). As a comparison, our current placement rate for MBA graduates is over 95%. We expect graduates of the MS in Business to find or maintain employment at levels in that range.

### **5.E. Student Preparation**

Students will be expected to meet regular MU Graduate School admissions standards. In addition, individual certificates might require additional prerequisites. Such requirements will be communicated to prospective students in written and online materials and in person (or phone) by admissions and recruitment staff.

### **5.F. Faculty and Administration**

The Associate Dean for Graduate Programs and Research in the TCoB (Dr. Chris Robert) is responsible for general oversight and coordination of all graduate business programs, including the MS in Business program. As this is a new program, and will require more attention initially, we anticipate that 20-30% of his time will be devoted to ensuring its smooth functioning and success. Day-to-day operations (i.e., recruiting, admissions, student services, advising, career services) will be provided by the Graduate Programs

Office (GPO), which is supervised by the Director of Graduate Programs (Jana Stern). Again, given that this is a new program, we expect a high percentage of her time to be devoted to launching and running this program (approximately 40%). Other key individuals will be the Certificate Coordinators, who are the faculty members responsible for overseeing day-to-day decisions about certificate requirements (e.g., making judgement calls for prerequisites, identifying substitute courses, etc.), and for communicating with GPO staff. Each certificate requires a certificate coordinator. The home unit(s) of each certificate are responsible for staffing courses required by each certificate. In the TCoB, we expect that all courses associated with certificates will be staffed by full-time faculty, though occasional use of adjuncts might be necessary to fill temporary gaps.

### **5.G. Alumni and Employer Survey**

In addition to an exit survey, we plan to survey alumni of the program at 1 and 5 years post-graduation. We will collect measures of satisfaction with the program, as well as data on salary increases and promotions. Our career services staff will track employers based on the exit survey, and will follow up with employer surveys to assess employer satisfaction with graduates, as well as employer demand for new programs that we might consider developing.

### **5.H. Program Accreditation**

The TCoB is accredited by the AACSB, which reviews programs on a five-year cycle. The MS in Business degree will be reviewed as part of the TCoB portfolio of programs.



## PROGRAM STRUCTURE

1. Total credits required for graduation: 30 minimum

2. Residency requirements, if any: none

3. General education

Total credits for general education courses: N/A

Courses (specific course or distribution area and credit hours):

Course	Hrs	Course	Hrs	Course	Hrs

4. Major requirements

Total credits specific to degree: 30 minimum

Courses (specific course or distribution area and credit hours):

Course	Hrs	Course	Hrs	Course	Hrs
Accounting for Managers (7310)	3	Org. behavior and mngt: Dyadic, group and org processes (7390)	1.5		
Managerial Finance (7410)	1.5	Intro to Strategic Management (7970)	1.5		
Microeconomics for business (7210)	1.5				
Adv. Marketing Mngt (7470)	1.5				
Managerial Marketing (7460)	1.5				

5. Free elective credits

Total free elective credits: N/A

In addition to the required 12 CH listed above, students chose one certificate offered by the TCoB, and either a second TCoB certificate, or an approved certificate from another MU College or UM System College of Business.

*The sum of hours required for general education, major requirements and free electives should equal the total credits required for graduation.*

**6. Requirement for thesis, internship or other capstone experience:**

Individual certificates might include capstone experiences or in-residence requirements for completion of the certificate. Prospective students will be informed of any special requirements associated with certificate programs in which they are interested. The MS in Business itself does not have a formal capstone course or experience.

**7. Any unique features such as interdepartmental cooperation:**

In addition to the interdisciplinary nature of the degree (i.e., stacking certificates from different colleges or schools), we anticipate that numerous certificates will be interdisciplinary collaborations.