



## EPC PROPOSAL FORM

**Originating Academic Unit:** School of Business

**Date Proposal Submitted:** 03/25/2022

**INSTRUCTIONS:** Upon completing the form, submit the document with all appropriate signatures to the Office of the Provost and copy to the Educational Policies Committee *via* the Faculty Governance Manager at [facgov@plu.edu](mailto:facgov@plu.edu).

**DEADLINES:** Type 1 proposals, being non-substantive, are generally considered on a rolling basis. Type 2 proposals - December 1. Type 3 proposals - October 1.

For specifics on the processing of each type of proposal, read the [Educational Policies Committee Manual](#) in the PLU Faculty Handbook (Section III, Part VI), and the [checklist for Preparing EPC Proposals](#), located on the documents and forms section of the Faculty Governance website.

### **PROPOSAL SUMMARY**

**Provide a summary of the proposal.**

The School of Business proposes to create a STEM designated path as a new major in the MBA program. The new major is titled “Management Science & Quantitative Methods.” The School proposes that the MBA degree with the new major become STEM-designated. A STEM-designation necessitates the assignment of a new CIP code to this major. The proposed STEM designation also calls for creation of two new course codes in the MBA program, which are actually existing courses in the MSMA curriculum that will be cross-listed with the MBA (e.g., similar to the existing project management course being cross-listed as BMBA 577 and BMSMA 577).

### **TYPE OF PROPOSAL**

**Check all the appropriate boxes.**

**TYPE 1: NON-SUBSTANTIVE CHANGES [complete shaded sections and provide signatures]**

Check boxes in this section. Also complete Proposal Summary (above), Catalog/Curriculum Changes section (ahead), and provide chair/dean signatures on final page.

- Change course number
- Change course title
- Delete course with no GenEd element, which is not part of by any other major/minor/concentration
- Prerequisite change within the academic unit only
- Catalog correction (editorial)

**TYPE 2: SUBSTANTIVE CHANGES [complete all sections, including signatures]**

Submit completed form, including signatures. Be sure to check all boxes that apply.

- |  |   |
|--|---|
| <input type="checkbox"/> Change catalog description**                | <input type="checkbox"/> Change a course’s credit hours         |
| <input type="checkbox"/> Add permanent GenEd course**                | <input type="checkbox"/> Add GenEd Element to existing course** |
| <input checked="" type="checkbox"/> Add permanent non-GenEd course** | <input type="checkbox"/> Delete GenEd course                    |
| <input type="checkbox"/> Change major requirement**                  | <input type="checkbox"/> Change minor requirement**             |
| <input type="checkbox"/> Revise curriculum**                         | <input type="checkbox"/> Change concentration requirement**     |

- Change grading type (e.g. P/F, letter grade)       Change prerequisite involving another unit's course  
 Other: \_\_\_\_\_

**[ X ] TYPE 3: CHANGES REQUIRING FACULTY ASSEMBLY APPROVAL [complete all sections, including signatures]**

Note: These proposals require the approval of the Board of Regents in addition to the Faculty Assembly.

- New Degree\*\*       New Major\*\*       New Minor\*\*       New Concentration\*\*  
 Eliminate Degree       Eliminate Major       Eliminate Minor       Eliminate Concentration  
 Add Certificate (non-Continuing Education)\*\*       Other: \_\_\_\_\_

\*\* These changes/proposals require completion of the [EPC Curriculum Change Template](#). The noted Type 3 proposals also require attachment of an [Institutional Impact Evaluation Form](#).

++ A course syllabus must be submitted with these course proposals.

**STATEMENT OF RATIONALE**

**Provide a statement of rationale and/or other clarifications. Include information on student learning and outcomes and any General Education Program rationale.**

The School of Business proposes to create a STEM-designated pathway (STEM-pathway here onwards) in the MBA program. The STEM-pathway creates a new major “Management Science and Quantitative Methods” in the MBA program and necessitates the assignment of a new CIP code to this major. The new designation also calls for creation of two new courses for MBA, cross-listed with existing courses in the MSMA curriculum.

CIP refers to the [Classification of Instructional Programs \(CIP\)](#), a taxonomic scheme of academic programs developed by the US Department of Education. The codes cover all fields and sub-disciplines so that educational institutions can assign a relevant code to courses, programs, certificates and degrees.

The MBA STEM-pathway will carry the CIP code (52.1399, Management Science and Quantitative Methods). The STEM-pathway is optional for the student.

Students graduating with an MBA in the Management Science & Quantitative Methods will have the same reflected in their transcripts as MBA-Mgmt Sci & Quant Methods. Students who do not choose to pursue the STEM-pathway will receive a General MBA degree (with the existing CIP code 52.0201).

**Background Information**

Over the last decade, quantitative modeling and analytical methods have become central to diverse fields such as strategy, marketing, logistics and human resources besides the traditionally quantitative disciplines of finance and accounting. Data from the market suggests that quantitative skills dominate in early career stages and the more qualitative, soft-skills become more important ten years after graduation. The trend is likely to continue for the foreseeable future.

With a STEM-designated MBA, graduates are better equipped to enter the job market with both quantitative and human-skills. The STEM-designation allows graduates to enter jobs at the intersection of technology, analytics and management. At the same time, leadership and other human-skills acquired in the MBA program open up their career path to senior management ranks in the future. A STEM-designation could also grow enrollment of international students, allowing for additional optional professional training that can be experienced in the United States, if desired by the student.

The creation of STEM-designated MBA programs across the country is growing substantially, with at least 40 of the top 100 business schools having some form of STEM-designation for their MBA, and reportedly, 30% of all business schools are considering a STEM-designation for their MBAs. This is an important element of the current competitive strategy of several schools across the nation.

The competitive landscape makes a compelling case for the School of Business at PLU to adapt to emerging trends, enhance the value of the MBA program, and increase enrollments of domestic and international students.

The proposed new major aligns with the strategic plan of the University to achieve enrollment growth through increased capacity of existing graduate programs with innovative changes in scope and modality. The proposal reflects the President's Recommendations approved by the Board of Regents in March 2021:

*(k) Implement an Embedded MBA Specialization pilot in Fall 2021 with planned expansion in 2022 (p.5, President's Final Recommendations-March 19 2021)*

### **PLU MBA-STEM Pathway**

The School of Business proposes to designate the following courses for the STEM-designated MBA:

- BMBA 511 : Accounting for Decision Making
- BMBA 517 : Understanding and Managing Financial Resources
- BMBA 504: Quantitative Marketing Research
- BMBA 526: Big Data and Digital Analytics

BMBA 511 and BMBA 517 are part of MBA core-curriculum, and an important quantitative component of the program. BMBA 504 and BMBA 526 are the proposed additional courses in the STEM-designated MBA major.

BMMA 504 (Quantitative Marketing Research) and BMMA 526 (Big Data and Digital Analytics) have a strong emphasis on quantitative and analytical skills. These two courses will be cross-listed with MBA-designated courses BMBA 504 and BMBA 526.

The four courses- BMBA 511, BMBA517, BMBA 504 and BMBA 526- with their emphasis on quantitative skills and methods form the basis for the STEM-designated CIP (52.1399, Management Science and Quantitative Methods).

In effect, MBA students opting for the STEM-pathway will have to complete two courses (8 credits) in addition to the current General MBA degree requirements.

### **Changes to Program Duration**

Currently, MBA students can choose to complete the program in one or two academic years (September-May) with 36 credits (nine courses). Students who opt for an emphasis area take two additional courses typically during the summer.

The proposed STEM-designation includes two courses (BMBA 504/ BMMA 504 and BMBA 526/ BMMA 526) that are offered only during Fall and Spring semesters respectively. This likely extends the period of study to more than one year and potentially more than two years, depending on the desire of the student and their preference for progression.

## **Potential Costs**

The current proposal utilizes existing courses in the MBA and MSMA programs. Enrollments in these courses range from (8-25). Enrollment upper bound in these courses is unlikely to breach 30 in the foreseeable future, and no new sections are needed. Therefore, there are no additional course creation, staffing, administrative, infrastructure and facility costs.

Assignment of the new CIP code and updating the codes with various agencies will carry minimal process costs and the process may be protracted. A potential associated cost is the time needed for recertification (updating) of the I-17 forms for PLU. This is a requirement of the Department of Homeland Security (DHS) under the "Student and Exchange Visitor Program (SEVP)" for international students. The expected total cost of staff labor may range between \$500 and \$2000.

SEVP-approved institutions use a web-based system called SEVIS (Student & Exchange Visitor Information System) to maintain information on nonimmigrant students. Each institution files Form I-17 with the SEVIS. Form I-17 includes information about the school's accreditation, degrees offered, courses of study and other details include the duration of programs and cost of programs. Schools are required to regularly update the information on their I-17, and they must undergo an in-depth recertification process with SEVP every two years to ensure that they are maintaining compliance with the regulations and can continue to host nonimmigrant students. The updating of I-17 forms is in any event due in Spring 2022.

A third potential cost arises from advertising and recruiting for the newly STEM-designated MBA. The funds for these purposes, however, are drawn from existing advertising program budgets. In collaboration with Graduate Programs and Continuing Education, existing funds will be deployed among STEM-designated and General MBA program recruitment efforts to showcase the expanded breadth of the PLU MBA.

## **Potential Benefits**

GPCE anticipates a year 2 increase in MBA enrollments by five to seven students because of the STEM designation. STEM-designated MBA is a much sought-after qualification for both domestic and international students.

A net addition of 5-7 students by year two because of STEM yields PLU approximately \$125,000-175,000 in graduate net tuition, and another \$40,000-60,000 in on-campus housing revenue. If the yield were higher than anticipated, say 3 students in year 1 and 10 students in year 2, revenue enhancement to PLU could be in the range of \$325,000-\$400,000 (tuition with housing/meal revenue).

Given the low costs of obtaining a STEM-designation, there is substantial revenue enhancement, better competitive positioning and minimal risk for the School and the University.

Importantly, STEM-designation has the added benefit of making the MBA attractive to international students. Students on an F-1 visa are normally granted a 12-month Optional Practical Training (OPT; temporary employment) authorization by the DHS. A STEM-designated degree qualifies the graduate for a 24-month extension of the OPT, beyond the normally granted 12-month period. The potential for work experience of 36 months in the United States is highly attractive for international students for two

reasons. The experience enhances their career prospects and path upon return to their home country. Alternatively, it could create an opportunity for immigration to the United States. This potentially translates into an increase in enrollments.

We request the approval of the proposal by the EPC given the potential benefits while adhering to accepted academic standards.

### **Additional Information**

The enclosed institutional impact evaluation form provides detailed background information including market demand, potential costs and benefits and the process of CIP code designation.

Note that the proposal seeks to provide two paths for students:

- 1) A General MBA where students may finish 36 credits of core courses and obtain an MBA (via the existing CIP code). There is no requirement of any electives or emphasis area. They may opt to take two (2) additional courses in an existing emphasis area. This, however, does not change the designation of their degree which is MBA (Business Administration).
- 2) Creating a new STEM based program with a new CIP code. Students have to necessarily complete 44 credits of specified courses if they wish to obtain this proposed degree MBA (Mgmt Sci & Quant Methods). This would likely be the preference for international students who wish to have the option for expanded OPT because the program is defined as a STEM based program and not a General MBA (via the new CIP code for the STEM based program).

## **CATALOG/CURRICULUM CHANGES**

### **Current Catalog Language:**

#### 1. Master of Business Administration (M.B.A.)

##### **Admission**

The PLU M.B.A. program is competitive. Selection is based on several criteria including work experience and potential contribution to the classroom experience. The Graduate Admission Committee bases decisions on a holistic assessment of the individual merits of each applicant. For questions regarding admission to the M.B.A. program, contact the M.B.A. director at 253.535.7252.

To apply submit the following:

- The PLU graduate application is available online at [www.plu.edu/mba/](http://www.plu.edu/mba/)
- A current résumé detailing work experience and community service
- All official transcripts from higher education institutions
- International transcripts should be translated into English. In some cases, a professional transcript evaluation may be required.
- A Statement of Professional Goals
- Official Graduate Management Assessment Test (GMAT) **or** Graduate Record Exam (GRE) (Optional)
- Two letters of recommendation
- Application Fee

International applicants must also submit:

- TOEFL **or** IELTS score report (determination of English proficiency is at the sole discretion of PLU)
- I-20 Evaluation Documents
- Declaration of Finances
- 

An interview with the M.B.A. Graduate Admission Committee may be requested. Applicants are evaluated individually, based on multiple factors indicating equivalence to admission standards, a promise of success in graduate school, qualities of good character, and potential contributions to the educational mission of graduate study.

##### **Fast Track Admission**

Fast Track is an abbreviated application process to the School of Business graduate programs. Students and recent alumni from PLU, any AACSB accredited school, or any Bachelor of Applied Science program at a community or technical college in Washington State, from any major, may be eligible to apply via this process. Applications may be submitted at any time during undergraduate studies. Eligible candidates remain admitted, provided that they complete their degree with minimum qualifications. Please contact the program director for details.

##### **M.B.A. Repeat Policy**

Master of Business Administration students may repeat an M.B.A. course one time. The cumulative grade point average is computed using the highest of the grades earned. Credit toward graduation is allowed only once. Under exceptional circumstances, a student may appeal to the dean to repeat a course a second time.

#### 2. Master of Business Administration Degree (M.B.A.)

##### **Master of Business Administration Degree (M.B.A.)**

Business Administration Program

*36 semester hours*

M.B.A. with Emphasis – 44 semester hours

*Students are not required to have an area of emphasis*

M.B.A.

36 semester hours

- BMBA 509: Global Business Perspectives (4)
- BMBA 510: Legal, Ethical and Social Responsibilities of Business (4)
- BMBA 511: Accounting for Decision Making (4)
- BMBA 513: Marketing Management (4)
- BMBA 515: Organizations, Leadership and Change Management (4)
- BMBA 517: Understanding & Managing Financial Resources (4)
- BMBA 521: Supply Chain and Information Management (4)
- BMBA 522: Quantitative and Managerial Decision Analysis (4)
- BMBA 523: Business Strategy and Innovation Management (4)

M.B.A. Emphasis Areas

○ Healthcare Management Emphasis

8 semester hours

1. BMBA 560: Managing Health Care Enterprises (4)
2. And 4 semester hours from the following:
  - BMBA 577: Project Management (4)
  - Approved BMBA 587/588/589: Special Topics (1 to 4)
  - BMBA 596: Internship (1 to 4)

○ Entrepreneurship and Closely-Held Enterprises Emphasis

8 semester hours

3. BMBA 550: Leading Family and Closely-Held Enterprises (4)
4. And 4 semester hours from the following:
  - BMBA 577: Project Management (4)
  - Approved BMBA 587/588/589: Special Topics (1 to 4)
  - BMBA 595: Internship (1 to 4)

○ Technology and Innovation Management Emphasis (TIM)

8 semester hours

5. BMBA 570: Management and Marketing of Technology (4)
6. And 4 semester hours from the following:
  - BMBA 577: Project Management (4)
  - Approved BMBA 587/588/589: Special Topics (1 to 4)
  - BMBA 595: Internship (1 to 4)

○ Supply Chain Management Emphasis

8 semester hours

7. BMBA 561: Advanced Supply Chain Management (4)
8. And 4 semester hours from the following:
  - BMBA 577: Project Management (4)

- Approved BMBA 587/588/589 Special Topics (1 to 4)
- BMBA 595: Internship (1 to 4)

**Proposed Catalog Language:** (note changes in **Blue Bold** and ~~Blue-Strikeout~~)

1. Master of Business Administration (M.B.A.)

**Admission**

**The PLU M.B.A. program offers two majors: a general M.B.A in Business Administration, and an MBA in Management Science & Quantitative Methods. Aspirants may apply for admission to either of the two majors. The M.B.A. in Management Science and Quantitative Methods is STEM-designated. Admission process is common for the two majors.**

The PLU M.B.A. program is competitive. Selection is based on several criteria including work experience and potential contribution to the classroom experience. The Graduate Admission Committee bases decisions on a holistic assessment of the individual merits of each applicant. For questions regarding admission to the M.B.A. program, contact the M.B.A. director at 253.535.7252.

To apply submit the following:

- a. The PLU graduate application is available online at [www.plu.edu/mba/](http://www.plu.edu/mba/)
- b. A current résumé detailing work experience and community service
- c. All official transcripts from higher education institutions
- d. International transcripts should be translated into English. In some cases, a professional transcript evaluation may be required.
- e. A Statement of Professional Goals
- f. Official Graduate Management Assessment Test (GMAT) **or** Graduate Record Exam (GRE) (Optional)
- g. Two letters of recommendation
- h. Application Fee

International applicants must also submit:

- i. TOEFL **or** IELTS score report (determination of English proficiency is at the sole discretion of PLU)
- j. I-20 Evaluation Documents
- k. Declaration of Finances

An interview with the M.B.A. Graduate Admission Committee may be requested. Applicants are evaluated individually, based on multiple factors indicating equivalence to admission standards, a promise of success in graduate school, qualities of good character, and potential contributions to the educational mission of graduate study.

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Master of Business Administration students may repeat an M.B.A. course one time. The cumulative grade point average is computed using the highest of the grades earned. Credit toward graduation is allowed only once. Under exceptional circumstances, a student may appeal to the dean to repeat a course a second time.

### 2. Master of Business Administration Degree

## **Master of Business Administration Degree (M.B.A)**

### [Business Administration Program](#)

## **M.B.A (Business Administration) Degree Requirements**

*36 semester hours*

M.B.A. with Emphasis – 44 semester hours

*Students are not required to have an area of emphasis*

M.B.A.

*36 semester hours*

- BMBA 509: Global Business Perspectives (4)
- BMBA 510: Legal, Ethical and Social Responsibilities of Business (4)
- BMBA 511: Accounting for Decision Making (4)
- BMBA 513: Marketing Management (4)
- BMBA 515: Organizations, Leadership and Change Management (4)
- BMBA 517: Understanding & Managing Financial Resources (4)
- BMBA 521: Supply Chain and Information Management (4)
- BMBA 522: Quantitative and Managerial Decision Analysis (4)
- BMBA 523: Business Strategy and Innovation Management (4)

### M.B.A. Emphasis Areas

#### ○ Healthcare Management Emphasis

8 semester hours

1. BMBA 560: Managing Health Care Enterprises (4)
2. And 4 semester hours from the following:
  - BMBA 577: Project Management (4)
  - Approved BMBA 587/588/589: Special Topics (1 to 4)
  - BMBA 596: Internship (1 to 4)

#### ○ Entrepreneurship and Closely-Held Enterprises Emphasis

8 semester hours

1. BMBA 550: Leading Family and Closely-Held Enterprises (4)
2. And 4 semester hours from the following:
  - BMBA 577: Project Management (4)
  - Approved BMBA 587/588/589: Special Topics (1 to 4)

- BMBA 595: Internship (1 to 4)
- Technology and Innovation Management Emphasis (TIM)  
8 semester hours
  1. BMBA 570: Management and Marketing of Technology (4)
  2. And 4 semester hours from the following:
    - BMBA 577: Project Management (4)
    - Approved BMBA 587/588/589: Special Topics (1 to 4)
    - BMBA 595: Internship (1 to 4)
- Supply Chain Management Emphasis  
8 semester hours
  1. BMBA 561: Advanced Supply Chain Management (4)
  2. And 4 semester hours from the following:
    - BMBA 577: Project Management (4)
    - Approved BMBA 587/588/589 Special Topics (1 to 4)
    - BMBA 595: Internship (1 to 4)

## **M.B.A. (Management Science & Quantitative Methods) Degree Requirements**

### ***44 Semester hours***

- **BMBA 509: Global Business Perspectives (4)**
- **BMBA 510: Legal, Ethical and Social Responsibilities of Business (4)**
- **BMBA 511: Accounting for Decision Making (4)**
- **BMBA 513: Marketing Management (4)**
- **BMBA 515: Organizations, Leadership and Change Management (4)**
- **BMBA 517: Understanding & Managing Financial Resources (4)**
- **BMBA 521: Supply Chain and Information Management (4)**
- **BMBA 522: Quantitative and Managerial Decision Analysis (4)**
- **BMBA 523: Business Strategy and Innovation Management (4)**
- **BMBA 504: Quantitative Methods for Decision Making (4)**
- **BMBA 526: Big Data and Decision Analytics (4)**

3. ADDITION OF COURSES TO Master of Business Administration (M.B.A.) - Graduate Courses

**BMBA 504 : Quantitative Methods for Decision Making**  
**Methods and techniques of quantitative research. Emphasis on research design, data collection, basic data analysis including chi-square, correlation, ANOVA and regression as well as interpretation and presentation of results. Students will work in groups to provide a custom research project for a business or non-profit client. (4)**

**BMBA 526 : Big Data and Decision Analytics**  
**This course provides a broad overview of analytic strategies for (structured and**

**unstructured) data collected in interactive channels. Topics covered include big data, key performance indicators, and how to optimize digital experiences by incorporating testing and experimentation. Prerequisites: BMBA 513. (4)**

**Additional information for courses:**

Is this a course that because of variable content could be repeated for credit?  Yes,  ? Times  No [Default is 'no.' Note that does not exclude a student's option to repeat a course for a better grade to replace the initial one.]  
 [If yes, the parameters must be clear in course description]

Grade Type:  Standard Letter  Pass/Fail

Anticipated Enrollment:

Course Syllabus Attached<sup>\*\*</sup>:  Yes  No

<sup>\*\*</sup>Required for new courses, and other proposals as indicated above.

**Does the proposal include the addition to a course of one or more General Education Program elements (GenEd)?**

**Yes** (Check the appropriate boxes below)

If more than one course is proposed, make sure the proposal makes clear which GenEd elements, if any, are proposed for each course.

**No**

- |   |  |
|---|--|
| <input type="checkbox"/> Alternative Perspectives <b>A</b>                            | <input type="checkbox"/> Physical Activity <b>PE</b>                                       |
| <input type="checkbox"/> Art, Music, Theatre <b>AR</b>                                | <input type="checkbox"/> Philosophy <b>PH</b>  |
| <input type="checkbox"/> Cross Cultural Perspective <b>C</b>                          | <input type="checkbox"/> Religion: Christian Traditions <b>RC</b>                          |
| <input type="checkbox"/> International Honors (100-level) <b>H1</b>                   | <input type="checkbox"/> Religion: Global Religious Traditions <b>RG</b>                   |
| <input type="checkbox"/> International Honors (200-level) <b>H2</b>                   | <input type="checkbox"/> Science and Scientific Method <b>SM</b>                           |
| <input type="checkbox"/> International Honors (300-level) <b>H3</b>                   | <input type="checkbox"/> Investigating Human Behavior, Culture, and Institutions <b>SO</b> |
| <input type="checkbox"/> Literature <b>LT</b>   | <input type="checkbox"/> Senior Seminar/Project <b>SR</b>                                  |
| <input type="checkbox"/> Inquiry Seminar (FYEP) <b>F</b>                              | <input type="checkbox"/> Writing Seminar (FYEP) <b>FW</b>                                  |
| <input type="checkbox"/> Mathematical Reasoning <b>MR</b>                             |  |
| <input type="checkbox"/> Natural Sciences, Mathematics, or Computer Science <b>NS</b> |  |

**NOTE:** Submissions will be forwarded to the Core Curriculum Committee for its review and recommendation. Diversity courses have specific learning objectives that must be included in the syllabus.

**STAFFING & BUDGETARY IMPLICATIONS**

**Has this proposal been formally approved by at least 2/3 of the full-time teaching faculty in your academic unit?**

**Yes**

**No** (Indicate why the proposal is being forwarded to EPC)

Does this proposal impact any other academic unit?

Yes (List below and indicate if 2/3 of the full-time faculty in that area support the proposal)

No

Does this proposal require the commitment of new or substantially different support services (e.g., Library acquisitions, Information and Technology Services, Wang Center)?

Yes (Explain and indicate if support services have been consulted)

No

Explain how the proposed change(s) will be staffed. Revised 2-Year Course Cycle must be attached.

The proposed changes do not create new staffing or section requirements. The two new courses are cross-listed with existing courses from another graduate program in the School (MSMA). The existing courses are already staffed and offered once a year. The new MBA courses will be offered concurrently with the existing course cycle of MSMA.

Are special budgetary arrangements and funding required? If "no", explain how the proposed changes will be integrated without added personnel or budgetary requirements.

Yes (Explain what types of support will be used to meet the budgetary requirements of the proposed change(s). Include the source(s) of funding, percentage of costs covered, and time frame covered.)

No

NOTE: Budgetary considerations will be reviewed/approved by Dean and Provost.

**REQUIRED SIGNATURES**



03/25/2022

Associate Dean

(Date)



03/25/2022

Dean

(Date)

Forwarded with Endorsement

Forwarded with Reservations

Provost

(Date)

## Institutional Impact Evaluation Form

1. **Name of Proposed Program:** STEM Based Management Science & Quantitative Methods Program

2. **Executive Summary:** In 1-2 paragraphs, describe the proposed program, including a clear statement of how the program meets the mission of the university.

The School of Business proposes to create a STEM-designated pathway (STEM-pathway here onwards) in the MBA program. The STEM-pathway creates a new emphasis area (concentration) "Management Science and Quantitative Methods" in the MBA program and necessitates the assignment of a new CIP code (52.1399, Management Science and Quantitative Methods) to this emphasis area. The new designation also calls for creation of two new courses for MBA, cross-listed with existing courses in the MSMA curriculum. The proposed STEM-designation extends the period of study to twenty-one months.

With a STEM-designated MBA, graduates are better equipped to enter the job market with both quantitative and soft-skills. The designation is also attractive to international students who have the opportunity to work for 36 months under an extended Optional Practical Training (OPT) authorization that is exclusive to STEM-designated programs.

Students graduating with an MBA in the Management Science & Quantitative Methods will have the same reflected in their transcripts. Students who do not choose to pursue the STEM-pathway can opt to receive a General MBA degree with a different CIP code (e.g., 52.0201).

The proposal accords with the University's core values and mission to "educate in a way that contributes to the success of all students", and to provide a "challenging academic experience."

3. **Proposed Program Start Date:** 1 September, 2022

4. **Program Offerings:**

a. Describe the type of program (new degree, new major, new minor, new concentration).

The proposed concentration "Management Science and Quantitative Methods." The enables the STEM-designation. Four courses with their emphasis on quantitative skills and methods form the basis for the STEM-designated CIP (52.1399, Management Science and Quantitative Methods). These are:

- BMBA 511 : Accounting for Decision Making
- BMBA 517 : Understanding and Managing Financial Resources

- BMBA 504: Quantitative Decision Making
- BMBA 526: Big Data and Decision Analytics

BMBA 511 and BMBA 517 are part of MBA core-curriculum, and an important quantitative component of the program. BMBA 504 (Quantitative Decision Making) and BMBA 526 (Big Data and Decision Analytics) have a strong emphasis on quantitative and analytical skills. These two courses will be cross-listed with existing MSMA program courses BMMA 504 and BMMA 526.

- b. Identify the delivery format for the program (face-to-face, online, blended, or competency-based) and rationale for this format.

The two new MBA courses in the new emphasis area (STEM concentration) will be delivered digitally, as the courses are cross-listed with the MSMA program which is fully online. Consistent with present practice, the core curriculum of the MBA will be delivered completely face-to-face.

- c. Describe the curriculum and program requirements by providing a clear description of the courses required to complete the program and any program-specific policies (e.g., credit hours in residency, GPA requirements). Include course offerings, number of credits, prerequisites, and any general education elements. Clearly distinguish between existing courses and any new courses that will need to be created or deleted. If you are using preexisting catalog language, please highlight changes by using **blue boldface** for changes and ~~blue strikeout~~ for deletions.

MBA students who choose the emphasis area of Management Science and Quantitative Methods will have to complete 44 credits (eleven courses) in the program including two emphasis area courses. Nine courses (36 credits) form the core of the MBA program. These are existing courses. Two new courses (BMBA 504 and BMBA 526) comprise the emphasis area of Management Science and Quantitative Methods. Course descriptions are given here.

**BMBA 509 : Global Business Perspectives**

Evaluate cultural, economic, political and environmental contexts for global business. Develop value-adding strategies, organizational capabilities and personal competencies for business success across borders and cultures. On-campus course with embedded international experience. (4)

**BMBA 510 : Legal, Ethical and Social Responsibilities of Business**

A survey of legal topics essential to effective managerial decision making. Explore the legal, ethical, and social implications of legal strategies and practices. This course also examines the sources and development of conflict and develops negotiation as a tool for managing conflict situations. (4)

**BMBA 511 : Accounting for Decision Making**

An examination of financial and managerial accounting topics, including financial reporting, budgeting, and cost behavior. The focus is on using accounting to support business decision making. (4)

#### BMBA 513 : Marketing Management

A practical approach to understanding and applying customer-directed marketing strategies for achieving organizational goals. Students will examine theoretical concepts and apply contemporary approaches to the marketing of services, products and ideas in business, public, and nonprofit organizations. (4)

#### BMBA 515 : Organizations, Leadership, and Change Management

The leader's role in creating organizational designs, processes and cultures. Leader competencies and practices for developing and managing people to meet performance requirements and organization cultural fit, and analyzing needs for organizational change. (4)

#### BMBA 517 : Understanding and Managing Financial Resources

Corporate finance topics including cash flow forecasting, planning, budgeting, valuation models, cost of capital, leverage, and risk and return. Additional topics include ratio analysis, computer simulation, financial feasibility assessment, balance sheet analysis, determinants of interest rates, and the impact of business cycle fluctuations on shareholder value. (4)

#### BMBA 521 : Supply Chain and Information Management

Develops a managerial perspective on the role of manufacturing and service operations within the enterprise and in supply chains. Examine the strategic role of information technology and systems in enabling decision making for global competitive advantage. (4)

#### BMBA 522 : Quantitative and Managerial Decision Analysis

Provide an intensive introduction to quantitative methods for business applications. Examination of the context within which individual firm decisions must be made. Demand, cost, pricing decisions, and the economic and regulatory environment of the firm are emphasized. (4)

#### BMBA 523 : Business Strategy and Innovation Management

Apply a multidisciplinary approach to explore execution of business- and corporate-level strategies, such as differentiation, cost-leadership, diversification, alliances, and M&As, and managing innovation to generate sustainable competitive advantage in a global context. (4)

#### **BMBA 504 : Quantitative Decision Making**

**Methods and techniques of quantitative research. Emphasis on research design, data collection, basic data analysis including chi-square, correlation, ANOVA and regression as well as interpretation and presentation of results. Students will work in groups to provide a custom research project for a business or non-profit client. (4)**

#### **BMBA 526 : Big Data and Decision Analytics**

**This course provides a broad overview of analytic strategies for (structured and unstructured) data collected in interactive channels. Topics covered include analytics, big data, key performance indicators, and how to optimize the decision experience by incorporating testing and experimentation. Prerequisites: BMBA 513. (4)**

There are no changes to the existing MBA program policies.

d. Provide a two-year course cycle for delivering the curriculum.

Course	Course Title	Fall	J-Term	Spring	Comments
BMBA 511	Accounting for Decision Making	X			
BMBA 513	Marketing Management	X			
BMBA 515	Organizations, Leadership, and Change Management	X			
BMBA 522	Quantitative and Managerial Decision Analysis	X			
BMBA 504	Quantitative Marketing Research	X			Cross-listed with BMMA 504
BMBA 509	Global Business Perspectives		X		
BMBA 510	Legal, Ethical, Social Responsibilities of Business			X	
BMBA 517	Understanding and Managing Financial Resources			X	
BMBA 521	Supply Chain/ Information Management			X	
BMBA 523	Business Strategy and Innovation Management			X	
BMBA 526	Big Data and Digital Analytics			X	Cross-listed with BMMA 526



e. Provide completion pathways (including two and four-year advising plans for undergraduate programs).

The table below is illustrative of the completion pathway

Course	Course Title	Semester 1 (Fall 1)	Semester 2 (Spring 1)	Semester 3 (Fall 2)	J-Term 2	Semester 3 (Spring 2)
BMBA 511	Accounting for Decision Making	X				
BMBA 513	Marketing Management	X				
BMBA 515	Organizations, Leadership, and Change Management			X		
BMBA 522	Quantitative and Managerial Decision Analysis	X				
BMBA 504	Quantitative Marketing Research			X		
BMBA 509	Global Business Perspectives				X	
BMBA 510	Legal, Ethical, Social Responsibilities of Business		X			
BMBA 517	Understanding and Managing Financial Resources		X			
BMBA 521	Supply Chain/ Information Management		X			
BMBA 523	Business Strategy and Innovation Management					X
BMBA 526	Big Data and Digital Analytics					X

f. Identify the learning outcomes for the program. For undergraduate programs, also describe the connection to the Integrative Learning Objectives.

g. Provide a plan for assessing program learning outcomes.

- h. Identify program entrance requirements, including application processes, if appropriate.

Learning outcomes for the program are the same as the existing MBA program learning outcomes and will follow the current assessment plan. Program entrance requirements remain the same as the current MBA entrance requirements.

**5. External Authorization:** Will the proposal require authorization from NWCCU, the state of Washington, or an external accreditation body?

The proposed pathway and the associated changes have to be approved by the NWCCU after the approval by EPC and the Board of Regents. This is the only external authorization.

There is no central certification governing body for STEM-designation. The US Immigration & Customs Enforcement (ICE) maintains a list of CIP codes that qualify as STEM-Designated areas of study. It is the responsibility of each institution to assign a CIP-code to a program and have the decision ratified by ICE/ DHS. While there are no established standards for strict adherence, it is expected that seeking a STEM-designation is based on a credible and coherent program structure and content and that the application passes institutional scrutiny. There are no costs to the designation.

The issue of international students must also be addressed here. The most common nonimmigrant student visa type at PLU is the F-1 visa. In order to host F-1 international students, institutions must seek and maintain approval from the Student and Exchange Visitor Program (SEVP), which tracks and monitors institutions and nonimmigrant students on behalf of the Department of Homeland Security (DHS).

SEVP-approved institutions use a web-based system called SEVIS (Student & Exchange Visitor Information System) to maintain information on nonimmigrant students. Each institution lodges Form I-17 with the SEVIS. Form I-17 includes information about the school's accreditation, degrees offered, courses of study and other details include the duration of programs and cost of programs. Schools are required to regularly update the information on their I-17, and they must undergo an in-depth recertification process with SEVP every two years to ensure that they are maintaining compliance with the regulations and can continue to host nonimmigrant students.

The recertification and updation of I-17 for PLU is due in Spring 2022 fortuitously coinciding with this proposal projected submission period.

New degree programs or significant changes to an existing program require an updating of I-17 followed by ratification and recertification by the SVEP. Adding a STEM-designated MBA to PLU's Form I-17 would require a review by SEVP, but once approved the program will be very appealing to international students on the F-1 visa because of the potential 36-month OPT.

## **6. Rationale:**

a. Provide evidence of demand for the proposed program, which may include a market analysis or review of trends at other universities. Include reference to relevant competitors' programs and characteristics of the proposed program that will make it attractive to students in light of this competition.

The current proposal creates a STEM-designated pathway in the MBA program. A STEM-designation is important and attractive for MBA graduates.

The importance of quantitative and analytical skills for management-related jobs has grown manyfold during the past decade, with quantitative modeling and analytical methods becoming central to diverse fields such as strategy, marketing, logistics and human resources besides the traditionally quantitative disciplines of finance and accounting. Data from the market suggests that quantitative concentrations dominate in early career stages and the more qualitative, soft-skills become more important ten years after graduation. With a STEM-designated MBA, graduates are better equipped to enter the job market with both quantitative and soft-skills.

A STEM-designated MBA broadens and enhances the graduates' immediate employment prospects and also, their career progression. The STEM-designation allows graduates to enter jobs at the intersection of technology, analytics and management. At the same time, an MBA opens up their career path to senior management ranks in the future. The trend is likely to continue for the foreseeable future.

The designation is also attractive to international students who have the opportunity to work for 36 months under an extended Optional Practical Training (OPT) authorization that is exclusive to STEM-designated programs.

These trends led to the creation of STEM-designated MBA programs across the country, with at least 40 of the top 100 business schools having some form of STEM-designation for their MBA, and reportedly, 30% of all business schools are considering a STEM-designation for their MBAs. This is an important element of the current competitive strategy of several schools across the nation. STEM-designated MBA programs have attracted increased enrollments of domestic students in many schools.

Each University is capitalizing on its current strengths in faculty scholarship, expertise and industry connections to group various courses as STEM-designated specializations in their MBA programs. In this classification, MBA students complete a set of specified/eligible courses beyond the core curriculum and are awarded a STEM-designated degree. A handful of business schools that have traditionally leaned towards quantitative areas (e.g., University of Rochester) are designating their entire MBA program as STEM.

The current proposal follows a similar path by building on our current strengths in quantitative marketing research and modeling as well as Accounting and Finance. The pool of prospective students in South Puget Sound interested in a STEM-designated Business program warrants the institution of this designation. STEM-designation also

has the added benefit of making the MBA attractive to international students as explained before.

The STEM-designation is only one part of the PLU MBA program. Students who do not wish to elect the STEM option may still obtain their MBA after completing the non-STEM requirements of the program. Borrowing from the domain name of a popular MBA-website, PLU MBA remains inclusive of Poets and Quants.

**b. Identify the target audience for the program.**

The STEM-designation is an attractive complement to those with an undergraduate degree in natural sciences, mathematics, engineering, economics or information technology. The STEM-designation is equally valuable for graduates of other disciplines including the Arts, Humanities and Social Sciences, if they are exploring or inclined towards an analytics-based career with eventual progression to management. Therefore, our target audience include experienced professionals and graduates interested in a leadership path in the technological, scientific and analytical realms.

**c. Explain why this is the right time for the university to add this program.**

The competitive landscape makes a compelling case for the School of Business at PLU to adapt to the emerging trends, enhance the value of the MBA program, and increase enrollments of domestic and international students. By gaining a STEM-designation at this juncture, PLU could reap first mover benefits. At the moment, only one school in the state ( Foster School of Business at the University of Washington [Seattle]) has a STEM-designated MBA program.

A net addition of 5-7 students by year two because of STEM yields PLU approximately \$125,000-200,000 in graduate net tuition, and another \$40,000-60,000 in on-campus housing revenue. Given the low costs of obtaining a STEM-designation, there is substantial revenue enhancement, better competitive positioning and minimal risk for the School and the University.

We believe that the proposal is well aligned with PLU's strategic objective to increase graduate program enrollments by expanding the capacity of existing programs through innovation reimagination and re-envisioning. The proposal is also part of the strategic thrust of the School of Business where one of our goals is to increase Graduate student enrollment.

**d. Explain how this program might compete with other programs currently offered at PLU.**

The proposed emphasis area does not compete with any other program currently offered at PLU. In fact, the addition of this emphasis area complements several undergraduate programs and could open up career paths for PLU graduates from across the campus.

- e. Identify which academic units might be affected by this program, and how.

No academic unit is affected by the proposed emphasis area. The courses offered and the concentration as a whole remain specific to the School of Business.

- f. Will approval of this program mean the termination of another program? If so, what is the timeline for the proposed elimination?

No. There is no termination proposed.

## **7. Marketing strategies:**

- a. Provide a marketing and advertising plan for the initial roll-out of the program, including a timeline.

- b. Identify longer-term plans for marketing and advertising.

The marketing and advertising for the MBA program is an ongoing undertaking. The new emphasis area will be marketed as part of the MBA program marketing. Program marketing includes outreach to alumni and firms, nation-wide digital marketing campaigns, and reaching out to graduating seniors across PLU campus and other universities. The marketing campaign for the year 2022-23 is already underway. When the proposal is ratified and approved by the EPC, the Board of Regents and NWCCU, it will be added to the existing campaign. No additional costs will be incurred.

**8. External funding sources:** Describe any plans for the development of funding sources for this program that are external to the university, including projected amounts of funding for each.

- a. Fundraising:
- b. Grants:
- c. Other:

At this point, there are no plans in place for these activities specifically for the proposed emphasis area.

## **9. Faculty, Staff and Administration:**

- a. Describe the qualifications needed by faculty who will teach in the program.
- b. Identify the number and type (contingent, tenure-track) of faculty members necessary to deliver the program.

- c. Will any current faculty serve in the proposed program? If so, how will this new commitment be accommodated in their teaching load?
- d. Identify the number and type (contingent, tenure-track) of *new* faculty necessary to deliver the program.
- e. If new faculty are required, provide a recruitment plan and timeline, including comments addressing the challenges of filling positions with small hiring pools or where market premia might be required
- f. Describe plans for providing administrative support for the program. Identify any new administrative positions or organizational rearrangements in staff needed to accommodate the new program.

Faculty teaching in the MBA program must be qualified as Scholarly Academics (SA) or Instructional Practitioners (IP) according to the criteria ( per AACSB accreditation standards) adopted by the School of Business.

The proposal is part of the MBA program and does not stand as a program by itself.

Currently, eight full-time faculty teach one section each in the MBA (FTE=0.133), and one contingent faculty teaches one section (FTE=0.17). The new courses in the proposed emphasis area are BMBA 504 and BMBA 526. These two courses are cross-listed with BMMA 504 and BMMA 526 of the MSMA program. The two MSMA courses are already taught by two full-time faculty as part of their regular teaching load (FTE=0.33).

Enrollments in these courses range from (8-25). Enrollment upper bound is unlikely to exceed 30 in the foreseeable future, and no new sections are needed. Therefore, there are no additional faculty, administrative, or organizational costs are involved.

**10. Facility and Technology Needs** – Includes but not limited to classroom, office, studio, laboratory, storage, technology, and computer labs.

- a. Describe any new construction or facility renovations necessary to launch or maintain the program and the associated expenses.
- b. Describe any furniture and/or equipment necessary to launch or maintain the program.
- c. Explain any special security considerations associated with the program.
- d. Identify possible health and safety concerns associated with the program.

The proposed emphasis area builds on existing courses and technology. Therefore, there are no additional infrastructural and facility costs. The courses do not involve any safety or security hazards.

**11. Library Resources:**

- a. Describe library resources needed to support the program, including print books, electronic materials, and other library resources.
- b. Does the new program require access to library resources not already available? Are these mandated by any program accreditation?
- c. If program is fully online or blended, describe how library resources will be delivered to students. Include expenses for postage, photocopying, etc.

The Digital Library services provided by the Mortvedt Library are adequate for the proposed emphasis area. These include databases, books, periodicals and inter-library loan services.

**12. Student Services**—Are there any changes in existing student services needed to accommodate the program? Will adding the program result in changes in service provision to the rest of the student body? Where might additional resources be necessary, and what are the projected expenses for those resources?

- a. Financial aid
- b. Registration
- c. Center for Student Success (advising, tutoring)
- d. Other

No changes in the existing student services are envisaged. The addition of the new emphasis area will not affect provision of services to the student body.

**13. Budget.** Use information from the questions above to complete the table. Please see footnotes for additional information.

Year	Year Zero	Academic Year 1	Academic Year 2	Academic Year 3	Academic Year 4
# Students in Program	While we expect an increase in the number of students in the MBA program, addition of this concentration does not change Faculty FTE, Administrative Load, Facility Utilization or Administrative Costs. All costs are attributable to the MBA program as it stands now and not specific to the proposed concentration. Please see the note below.				
# Faculty FTE to Deliver Program					
# New Faculty FTE to Deliver Program					
Average Faculty Salary in unit					
# Administrators or Staff					
# New Administrators or Staff					
Average Administrator or Staff Salary					

Services & Purchases					
Facility and Technology					
Library Resource					
Student Services					
Net					

- i. Identify the projected number of students *declared* in the new program for each of the first four years of the program.
- ii. Identify projected faculty FTE for each of the first four years of the program.
- iii. Identify the number of additional (new) faculty FTE (whether new of contingent) necessary to add in each of the first four years of the program.
- iv. Identify average faculty salary in the proposed program in consultation with the Provost's Office.
- v. Indicate the projected staff/administrator FTE for each of the first four years of the program.
- vi. Identify the number of additional (new) staff/administrator FTE necessary to add in each of the first four years of the program.
- vii. Indicate the average staff/administrator salary.
- viii. Indicate the annual services and purchases budget required for each of the first four years of the program, including any projected expenditures required for start-up expenses. *Itemize these expenses in an attached narrative.*
- ix. Estimate facilities and technology expenses for each of the first four years of the program.
- x. Estimate library expenses for each of the first four years of the program.
- xi. Estimate student services expenses

**NOTE:**

The proposed emphasis area is not a new program by itself. It is conceived as an addition to the current MBA program choices, utilizing existing courses that are continually offered. Even with the addition of the emphasis area, the program costs for MBA will remain constant since the number of faculty and sections do not change. There is no additional administrative or staff load involved. In effect, there are no additional course creation, staffing, administrative, infrastructural and facility costs. For this reason, we believe this section is not applicable to the current proposal.



## **Risk management**

Describe the major risk considerations of the plan and the steps that could be taken to mitigate or minimize the risk and still implement a successful plan. For example, if applicable, the plan may encounter problems associated with items such as negotiating a lease contract, obtaining city or government approvals, obtaining accreditation approval, etc.

There are no material risks involved in the proposal. Ratification of the proposed designation with the CIP code (52.1399, Management Science and Quantitative Methods) by ICE is the only uncertain event. To mitigate this risk, we conducted due-diligence on the types of STEM-designated MBA programs offered across the nation before compiling the courses included in the emphasis area. For example, Business analytics is no longer accepted as a STEM-designated option by ICE. On the other hand, Business Statistics and Management Science & Quantitative Methods are included in the STEM-designation list of ICE. We took these factors into account in designing the current emphasis area (concentration).

## **15. Accountability and Exit Strategy:**

a. Outline the steps that will be taken to review whether the program is meeting its enrollment and revenue targets, including the timeline for such review. For new undergraduate programs, provide a 5-year timeline; for new graduate programs, provide a 3-year timeline.

Other than for purposes of the CIP code designation, this is not a new graduate program. It is an existing program (MBA) with the unique addition of two additional course (MSMA) into a new structure that offers benefits to PLU without additional costs. No new sections, no new structure, simply a realignment of existing offerings to help generate interest and potential attractiveness for MBA students. The added 24 months of OPT training (moving from 12 to 36) provides a great attraction for students looking for a STEM designated program that can provide up to three years of training in the United States and in the Pacific Northwest region.

Associate Provost Geoff Foy estimated 5-7 students in year 2 (\$125,000-175,000 in tuition, and \$40,000-60,000 in housing and meal revenue). Year 3 could be 7-10 students (\$175,000-250,000 in tuition, and \$50,000-80,000 in housing and meal revenue).

b. Provide an exit strategy, including a general timeline for deciding whether to terminate or continue the program and a plan for teaching out the program.



In collaboration with the Provost and GPCE, PLU could review the program after 3 years if enrollment is not appropriate. However, note that the decision to terminate the STEM designated program would not change the course offerings, sections, or overall cost structure to PLU. There could be some savings in advertising, though that would be likely be limited. The reason for this is that it utilizes existing

structure to design the STEM based program, and does not add staff, faculty, or course sections for the program.

c. Identify who will be responsible for providing accountability and oversight for the program meeting its enrollment and revenue targets.

As noted earlier, the School estimates 5-7 additional MBA students who will specialize in Management Science & Quantitative Methods over the first two years. The dean will conduct a review of enrollments, seek out market feedback on the concentration's attractiveness and feedback from students and stakeholders at the end of each academic year. These activities will be carried out by the dean in collaboration with the program director, associate dean and graduate faculty, even if the enrollment targets are met or exceeded. If the targets are not met after the first two years, a deep review of the emphasis area will be conducted to explore and discover any warranted changes in course content and delivery. A third and final review will be conducted at the end of three years by the dean's office with a view to extend or terminate the emphasis area, depending on enrollment growth and graduate employment.

**16. Communications Checklist.** The persons/offices listed below should be consulted as the proposal is prepared.

	<b>Signature</b>	<b>Date</b>	<b>Level of Support:</b> <ul style="list-style-type: none"> <li>• <b>Support</b></li> <li>• <b>Undecided</b></li> <li>• <b>Do not support</b></li> </ul>
Associate Dean		11/17/21	<input type="text" value="Support"/>
Dean		11/17/21	Support
Associate Provost for Undergraduate or Graduate Studies, as appropriate			
Provost			
Accreditation Liaison Officer	<input type="text" value="Support email Enclosed"/>	11/16/21	<input type="text" value="Support"/>
Director of the Library	<input type="text" value="Support email Enclosed"/>	11/16/21	<input type="text" value="Support"/>
Registrar	<input type="text" value="Support email Enclosed"/>		<input type="text" value="Support with Question"/>
Student Financial Services			
Director of Admission	<input type="text" value="Support email Enclosed"/>	11/16/21	<input type="text" value="Support"/>
Executive Director Center for Student Success	<input type="text" value="Support email Enclosed"/>	11/16/21	<input type="text" value="Support"/>
Vice President for	<input type="text" value="Support email Enclosed"/>	11/16/21	<input type="text" value="Support"/>

Administrative Services			
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May 2020

**PLU School of Business**  
**MBA new emphasis area (Management Science & Quantitative Methods) Proposal**  
**November 2021**

**Institutional Impact Evaluation Form- ERRATA**

Page/ Line	Original Text	Corrected Text
p. 1/ lines 33-34	<b>The enables</b> the STEM-designation.	The <b><u>concentration</u></b> enables the STEM-designation.
p. 2/ line 25	Two new courses (BMBA 504 and BMBA 526) comprise <b>he</b> emphasis area of Management Science and Quantitative Methods	Two new courses (BMBA 504 and BMBA 526) comprise <b><u>the</u></b> emphasis area of Management Science and Quantitative Methods.
p.1 0/ line 15	Currently, eight full-time faculty teach one section each in the MBA <b>(FTE=0.133)</b> , and one contingent faculty teaches one section (FTE=0.17).	Currently, eight full-time faculty teach one section each in the MBA <b><u>(FTE=1.33)</u></b> , and one contingent faculty teaches one section (FTE=0.17).