

MEMORANDUM

TO: Fort Wayne Senate

FROM: Shannon Johnson, Chair
Graduate Subcommittee

DATE: November 12, 2021

SUBJ: Engineering Management Concentration MBA

The Graduate Subcommittee approved on November 12, 2021 the attached documents regarding the Engineering Management Concentration MBA.

The committee finds that the proposed program requires no Senate review.

Shannon Johnson, MLS
Chair, Graduate Subcommittee
Walter E. Helmke Library

Approving:
Hank Strevel
Hadi Alasti
Alan Legg
Kate White
Terri Swim
David Cochran
Shannon Johnson

Not Approving:

Abstain:

Absent:
Kerrie Fineran
Abe Schwab

Degree/Certificate/Major/Minor/Concentration Cover Sheet

Date:

Institution: Purdue

Campus: Fort Wayne

School or College:

Department:

Location: 80% or more online: Yes No

County:

Type:

Program name:

Graduate/Undergraduate:

Degree Code:

Brief Description:

Rationale for new or terminated program:

CIP Code:

Name of Person who Submitted Proposal:

Contact Information (phone or email):

Request for New Concentration

Request for Revision of Existing Concentration

Request for Deletion of Existing Concentration

**PURDUE UNIVERSITY
GRADUATE SCHOOL**

Request for a Concentration

Heads of graduate programs may request that one or more concentration(s) be established within their majors, to allow a specialized area of graduate study to be reflected on a student's final transcript.

Graduate Program (Major) MBA Program Major Code 520101

Title of Concentration Engineering Management

Effective Session: Fall Spring Summer Academic year: 20 22 - 20 23

Degrees to which this concentration applies:

- Master of Science
- Master of Arts
- Doctor of Philosophy
- Other MBA

Mode of Delivery (i.e.: Campus Based/ Distance-Online):

Hybrid - Campus based and Distance Learning blended

Campus(s) at which this concentration applies:

- Calumet
- Fort Wayne
- Indianapolis
- North Central
- West Lafayette

Justification: Please address the following topics (in order) when requesting a concentration: (Attach additional sheets as necessary.)

- Statement of the mission of the proposed concentration including, but not limited to, the need for the concentration, the target audience, the relationship to the major under which the concentration will be listed, and the relationship to other concentrations in the degree program
- Focus of the research or professional program
- Participating faculty, including name, academic rank, and departmental affiliation
- Currently enrolled or expected number of students
- Core courses and a description of how they fit into and support the degree program. List only the courses required for this concentration.
- Learning outcomes (e.g., unique knowledge or abilities, capacity to identify and conduct original research, ability to communicate to peer audiences, critical thinking and problem-solving skills, etc.).

Recommended by:

Approved by:

Head of the Graduate Program Date

Graduate School Dean (West Lafayette) Date

Academic Dean Date

Concentration Code _____
(To be assigned by the Office of the Registrar if this request is for a new concentration)

Additional Authorizing Signature (if applicable) Date

Chadi Braish - Chadi.Braish@pfw.edu
Contact person (& e-mail address) for questions regarding form

Re: Proposed Engineering Management Concentration in the MBA Program

Statement of the mission of the proposed concentration:

This concentration leverages the already high enrollment of engineers in the MBA program and allows them to further customize their degree with electives in topics that will aide in their career growth, post-completion. This concentration facilitates systems thinking into business much more smoothly, a long-standing trend in manufacturing and industry. The economic industries in Northeast Indiana make this a required addition to the university offerings, in addition to the increased demand for STEM education in the region.

Focus of the research or professional program:

The focus of this professional program is to prepare business and engineering leaders who will grow and sustain regional businesses and enterprises through systems thinking and design.

Participating Faculty, including name, academic rank, and departmental affiliation:

<u>Course</u>	<u>Instructor(s)</u>	<u>Academic Rank</u>
BUS 50100	Dr. Mike Slaubaugh*	Associate Professor of Accounting
BUS 50200	Mike Reffeitt	Clinical Lecturer of Finance
BUS 50300	Dr. Carolyn Stumph*	Clinical Assistant Professor of Economics
BUS 50400	Prof. Kent Kauffman*	Associate Professor, Economics and Finance
BUS 52400	Dr. Zafar Nazarov*	Associate Professor of Economics
BUS 54001	Dr. Shubham Singh and Dr. David Cochran	Assistant Professor of OM, Professor of Systems Eng.
BUS 54200	Dr. Mike Slaubaugh* and John Minnich	Associate Professor of Accounting, Clinical Lecturer
BUS 54201	Dr. Haowen Luo*	Assistant Professor of Finance
BUS 54202	Dr. James McHann	Clinical Professor of Management
BUS 55200	Dr. Prasad Bingi and Dr. Xiaoguang Tian	Associate Prof. of Mgmt, Assistant Prof. of Mgmt.
BUS 56000	Dr. Nichaya Suntornpithug*	Associate Professor of Marketing
BUS 57000	Dr. Shubham Singh and Dr. David Cochran	Assistant Professor of OM, Professor of Systems Eng.
BUS 59000	Dr. Hank Strevel* and Dr. James McHann	Assistant Prof. of Mgmt, Clinical Prof. of Mgmt.
BUS 60001	Mike Reffeitt and Dr. James McHann	Clinical Lecturer of Finance, Clinical Prof. of Mgmt.

<u>Course</u>	<u>Instructor(s)</u>	<u>Academic Rank</u>
SE Electives	Dr. David Cochran**	Professor of Systems Engineering
TECH Electives	Varies	

*Current or recent members of the MBA Graduate Policy Committee

**Dr. Cochran assisted in the development and layout of the proposed concentration and currently teaches sections of core MBA courses when needed

Currently Enrolled or expected number of students:

When the current population of students were surveyed in 2020, over 60% of the total MBA population responded to the short questionnaire about concentrations. Over 30% of respondents were 'interested' or 'very interested' in switching to an Engineering Management concentration. Additionally, new students would be more likely to enter the MBA program if they see concentrations that are relevant to their career aspirations. This leads us to believe that 20-30 students would likely be in this concentration.

Core courses and a description of how they fit into and support the degree program:

MBA Core (required in all concentrations):

BUS 54202 Leadership and Management of People in Organizations
BUS 54001 Data Analysis and Management Science
BUS 52400 Decision Making in a Global Economic Environment
BUS 54200 Strategic Cost Management
BUS 55200 Management of Information Technology
BUS 54201 Financial Analysis and Decision Making
BUS 56000 Marketing and Customer Relationship Management
BUS 57000 Operations and Supply Chain Management
BUS 59000 Strategic Management Capstone
BUS 60001 Experiential Learning

New Engineering Management Concentration Electives (select 2):

SE 52000 Engineering Economics
SE 53000 Systems Engineering Management
SE 54000 System Architecture
TECH 59500 Workshop in Advance Technology: Lean
TECH 57400 Advanced Quality Engineering Methods
CPET 58100 E-Commerce and Business Technology
ECET 58100 Renewable Energy Technology

Learning Outcomes:

Current MBA learning outcomes include:

- Mastering business theory and application across functional areas
- Generation of innovative solutions to business problems
- Identifying and recognizing differences in business environment across countries
- Communicate effectively and professionally in various business settings
- Speak and present effectively in business settings
- Identify the relevant professional and social responsibility issues in a business decision
- Generate effective solutions to ethical dilemmas

Outcomes added because of the new concentration:

- Informed decision making through the use of analysis and systems design thinking with sustainability at the core

- Use of statistics for industry application and reduction of variation
- Language and tone of system design for long-term success of implementations and scalability

When developing a new degree program, major, certificate, minor, concentration, track, or specialization please review the questions below when developing your response to the library or additional resources sections. Please consult your liaison librarian for assistance.

Library Resources

Address the following issues regarding the impact of the new program on the library's budget and personnel. Please respond to each item below indicating the library sources and services required to support the proposed program.

- Which databases/indexing sources will be used by the courses in this program?
 - **Business Source Complete**
 - **IBISWorld**
 - **Marketline**
 - **Compendex**
 - **IEEE Xplore**
 - **Scopus**

- What are the journals that will be used by students completing library research in this program? Please list three to five titles. Is there an expectation that access to new journals will need to be purchased for students in this program?

The following journal titles were selected based on their rankings according to the SJR and coverage of the interdisciplinary connections between business and engineering.

- ***Journal of Management in Engineering***
- ***Industrial Relations***
- ***International Journal of Industrial Organization***

The journals listed above and others related to business and engineering are covered in databases subscribed to by the library. The library performs an annual review of journal titles and databases subscription to consider adding or discontinuing subscriptions. The library will need to consider maintaining these subscriptions in upcoming budget requests in order to retain the same level of support for the program.

- Are there any specific reference sources (e.g. encyclopedias, handbooks, standards, etc.) required to support the new program?

At this time, no new references sources will be required to support the new concentration. If enrollment in the concentration grows significantly, the demand for additional materials may necessitate the need for an increase in the recurring materials budget to cover the cost of ongoing subscriptions.

- Is there an expectation for additional books to be purchased? What about DVD or audio/visual materials? What is the estimated dollar amount needed yearly to support this program with new books and media materials?

This concentration includes new and existing courses in leadership and management, data analysis, supply chain management, systems engineering, and e-commerce, among others. These areas are currently cover through existing collection development for the business and engineering programs and while modest additions may occur, no significant additional purchases to the print or electronic collections are anticipated in support of this concentration.

- Will the new program use the Library's Document Delivery Services? Costs for this service come out of the Library's budget. What types of materials would the program be requesting through DDS?

The addition of the concentration should not significantly impact Document Delivery Services.

- Who is the liaison librarian for this program? The liaison librarian provides support through involvement in Blackboard-supported classes, one-on-one research consultations, in-class instructional sessions, and tailored course guides for research assignments. Which of these librarian services do you anticipate will be utilized in the new program?

Sarah Wagner, wagners@pfw.edu, is the liaison librarian for the College of Engineering, Technology, and Computer Science. The position of liaison librarian for business is currently open, but is expected to be filled by Fall 2021. The liaison librarians will be able to provide all of the services listed above. New services may be added as recommended by the liaison librarians.

- Memo from Liaison Librarian regarding resources.

See attached document.

- Is there an accrediting body that will be overseeing this program? What are the statements of the accrediting body related to the library, e.g. holdings, personnel, services?

The Doermer School of Business holds AACSB accreditation. Separately, the ETCS programs are accredited by ABET.

Liaison Librarian Memo

Date:

From:

To:

Re:

Describe availability of library resources to support proposed new program:

Comments:

Sarah Wagner *7-2-2021*
Liaison Librarian Signature *Date*