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A Proposal to Establish an Online Master's of Science in Global Supply Chain Management (GSCM)

Prepared by Supply Chain & Operations Management Area

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BACKGROUND

During the past decades, supply chain management has evolved rapidly from improving process efficiency for the delivery of products and services to managing complex global networks. The notion of global supply chain management has expanded to developing and mobilizing global supply networks with knowledge and capability to manage production process, material flow, and information exchange as well as diverse technology, geography and culture.

With the growth of online learning, many schools are beginning to offer online master’s programs in supply chain management. Some examples are listed in the table below.

School	Length	Credit	Cost	Scholarship	Annual Enrollment
Univ Washington ¹	2 year	43	\$953 per credit	Up to \$20,000	25-35, hybrid
University of Southern California ²	16 mo.	30	About \$60,000		unknown
University of Maryland, University College ³		36	\$694 per credit		unknown
Rutgers University ⁴		30			60-90
Michigan State University ⁵	2 years	31	\$1800 per credit		60

1 Master’s of Supply Chain Transportation and Logistics. Designed for part time students. 1 week in residence at beginning 3-5 credit each class, one class each term, 4 terms a year. All required course and one practicum course.

2 Master’s of Science in Global Supply Chain. Fixed schedule with 1.5-3 credit classes

3 Master’s in Management with concentration in Acquisition and Supply Chain Management. Allowing up to 6 transfer credits. Core plus elective format and one capstone course.

4 MS in Supply Chain Management. Not much information their website.

5 MS in Supply Chain Management: Hybrid online/on-campus format with 3 three-day weekend sessions. All required course and one field study and research course.

Penn State ⁶	20 mo.	30	\$1,121 per credit		80 (degree) 40 (certificate)
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Krannert currently offers an on-campus program in MS Global Supply Chain Management, which has a good reputation and a healthy enrollment. However, many of our inquiries from potential students ask if we have an online version of our program, and we do not currently have an offering for them. These students tend to be working professionals in the Midwestern United States, many of whom are Purdue alumni already familiar with our brand. The proposal is to create a new Online Masters of Science in Global Supply Chain Management program within the existing GSCM major for the Master’s of Science in Management degree.

PROGRAM DESIGN

The online supply chain programs that are currently available all have several common features:

- Almost all the programs are designed as “the online copy of the on-campus program.”
- Most of the programs has “one-size-fit-all” offering with fixed/required course schedules. Only a few programs allow limited (e.g., 6 out of 30 credits) electives or tracks.

Thus, the advantage of the available online programs is aimed toward saving students time and expense in completing a degree program.

To differentiate from the available programs and to leverage our diverse faculty expertise, the proposed program would have the following key differentiators:

- **Flexibility of course selection:** We are offering a large number of elective courses in our on-campus program. With the existing resources, we provide the students a great level

⁶ Master of Supply Chain Management. Core courses of 12-credit (qualifying for a certificate), advanced course of 12-credit, and elective of 6 credits.

of flexibility in developing individual plan of studies that seamlessly connects their background to their career goal.

- **Timely updates to content:** The business world is evolving rapidly with the advancement of technology. By developing a shared library of content for contentpropery supply chain management, our faculty can quickly build trendy topics and new theories and practices in our supply chain courses that suit the need of the students and enhance the competence of our students.

The large number of electives offered, and the synergies with other Krannert online master's programs (most notably MBA and BA) would allow flexibility for the students to complete their study based on their own schedule, progress and career planning. At the same time, the way the curriculum is developed allows the content to cover a wide range of topics and keep them up to date. This would make our program significantly differentiated from the existing one-size-fit-all programs in the market and fully leverage the flexibility of online learning. Given our strong reputation in supply chain and operations, this program would suit a large range of students, from fresh bachelor graduates to working professionals. In view of these, the proposed program is unlikely to cannibalize our current on-campus program.

Given that we already have an on-campus version of the MS GSCM program, the design of the online curriculum should ensure that the two versions maintain the same academic standard.

For that, we propose that a faculty committee being appointed to oversee the following:

- Keep the existing course titles and make the two curricula comparable. This, over time, would also allow us to understand the difference between the student bodies, and improve our instructional methods.

- Retain the same standard for homework assignment and tests. The difference in the online and the on-campus delivery is inevitable. However, the required learning points for a course should be tested at the same level.
- Some online content can be made available for on-campus classes as reference or optional content for in-class students who have interests or students who need pre-requisites. This would increase the value of online content.

PROGRAM STRUCTURE AND CURRICULUM

- We plan to start offering this program in Spring 2021.
- The minimum time needed to complete this program is 14 months. As content accumulates and enrollment increases, spring, summer, and fall starts will be available.
- The program structure remains similar to the current on-campus MS GSCM program. We expect any updates would be synchronized across the two programs in the future.

Courses	Credits
Core courses	11
GSCM electives	10
Free electives	9
Total Credits	30

Core courses (11 credits)

- MGMT 660: Operations Management (3 credits)
- MGMT 664: Supply Chain Management (2 credits)
- MGMT 565: Strategic Sourcing and Procurement (2 credits)
- MGMT 566: Global Supply Chain Management (2 credits)
- MGMT 568: Supply Chain Analytics OR MGMT 670: Business Analytics

GSCM Electives (10 credits)

- MGMT 560: Manufacturing Planning and Control (2 credits)
- MGMT 561: Logistics Concepts and Models (2 credits)
- MGMT 562: Project Management (2 credits)
- MGMT 564: Service Operations Management (2 credits)
- MGMT 568: Supply Chain Analytics (2 credits)
- MGMT 569: Sustainable Operations Management (2 credits)
- MGMT 661: Experiential Learning (up to 4 credits)

Students will have the option of proposing a faculty-supervised project, and will be awarded credits based on the project scope as agreed upon by the student and faculty advisor. This project may take the form of a research project/thesis or a company-sponsored project. Each project can be between 1 and 4 credits, and this course is repeatable for up to a total of 4 credits.

- MGMT 572: Six Sigma and Quality Management
- MGMT 474: Predictive Analytics
- MGMT 590: Production Scale Big Data Implementation
- MGMT 669: Negotiations in Organizations

Free Electives (9 credits)

Students may choose from the following elective courses, subject to online availability:

- MGMT 590: Using R for Analytics
- MGMT 590: Statistical and Machine Learning
- MGMT 650: Strategic Management
- MGMT 688: Developing a Global Business Strategy
- MGMT 571: Data Mining
- MGMT 586: Python Programming
- MGMT 590: Big Data
- MGMT 655: Competitive Strategy
- MGMT 520: Pricing Strategy and Analytics
- MGMT 615: International Financial Management
- MGMT 650: Strategic Management
- MGMT 640: Industrial Relations
- MGMT 623: Business Marketing
- MGMT 611: Advanced Corporate Finance

- MGMT 525: Marketing Analysis
- MGMT 590: Digital and Social Media Marketing
- MGMT 662: Leadership
- MGMT 614: Investments
- MGMT 672: Advanced Business Analytics
- MGMT 590: Data-Driven Marketing
- MGMT 681: Managing Behavior in Organizations
- MGMT 610: Financial Management
- MGMT 600: Accounting for Managers
- MGMT 690: Organizational Development
- MGMT 690: Compensation and Reward Systems
- MGMT 687: Design of Social Networks and Engagements
- MGMT 642: Portfolio Management
- MGMT 521: Brand Management
- MGMT 625: Marketing Research
- MGMT 522: New Product Development
- MGMT 525: Marketing Analytics
- MGMT 590: Customer Relationship Management

Other Krannert online offerings may be used as free electives with the approval of both the course instructor and the Academic Director.

Sample Plan of Study (14-month completion)

Spring		Summer		Fall		Spring	
MGMT 660	3cr	MGMT 664	2cr	MGMT 565	2cr	MGMT 566	2cr
MGMT 586	2cr	GSCM Elective	2cr	GSCM Electives	2cr	GSCM Elective	2cr
Free Elective	2cr	GSCM Elective	2cr	GSCM Elective	2cr	Free Elective	2cr
		Free Elective	2cr	Free Elective	3cr		
Total	9cr		8cr		9cr		6cr

TUITION AND FEES

Tuition and fees for 30 credits of coursework, not including books and living expenses:

- Resident/In-state: \$28,320
- Non-resident, including International: \$29,820

These numbers are based on 1) parity with other programs offered by Krannert and 2) competitive analysis with peer schools.

ENROLLMENT ESTIMATION AND ECONOMIC MODEL

We expect the audience for this program to be largely early-career professionals, with 3-5 years' work experience, who wish to enhance their career prospects without leaving their current jobs. Our curriculum is designed to be accessible to those with no prior supply chain management training or experience, and will therefore attract students of varying backgrounds and expertise. This is consistent with our residential program, in which we have seen consistent student success independent of specific professional background.

Based on existing inquiries from prospective students and estimations by our marketing team, we expect the first cohort would be 20-25 students starting in January, 2021, with growth in subsequent years.