Process of Obtaining Program Approval for Bachelor of Science

Program in Supply Chain Management

At the University of Wisconsin-Stout

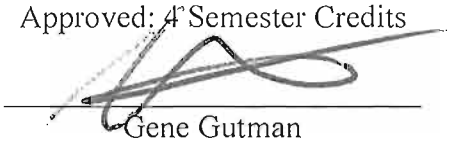
by

Kristi Krimpelbein

A Research Paper
Submitted in Partial Fulfillment of the
Requirements for the
Master of Science Degree
in

Training and Development

Approved: 4 Semester Credits



Gene Gutman

The Graduate School

University of Wisconsin-Stout

May, 2010

The Graduate School
University of Wisconsin-Stout
Menomonie, WI

Author: Krimpelbein, Kristi

Title: *Process of Obtaining Program Approval for Bachelor of Science in Supply Chain Management*

Graduate Degree/ Major: MS Training and Development

Research Adviser: Gene Gutman

Month/Year: May, 2010

Number of Pages: 76

Style Manual Used: American Psychological Association, 6th edition

Abstract

Supply chain management is a term that has emerged in the last two decades and has evolved from the fields of transportation and logistics. Supply chain management is the coordination of activities from the point of origin to the customer. Since supply chain management is a relatively new concept there has been great growth in the field that has resulted in a shortage of qualified supply chain management professionals. This shortage of qualified professionals and the rapidly changing field has provided an opportunity for institutions to adapt their curriculum to this new field and expand their offerings related to supply chain management.

This study documents the process of obtaining approval for implementation of the Bachelor of Science program in Supply Chain Management at the University of Wisconsin-Stout (UW-Stout). The decision to seek approval for the implementation of the Bachelor of Science in Supply Chain Management was based on the need for supply chain professionals, support from

the Supply Chain Management Advisory Board, and the success of the Supply Chain Management minor and certificate programs. It was determined that there was a need for a Bachelor of Science program in Supply Chain Management as the comparable programs offered in the UW System are Bachelor of Business Administration (BBA) degrees. The Bachelor of Science program in Supply Chain Management UW-Stout program, would present a unique and unduplicated offering within the UW System.

The Graduate School
University of Wisconsin Stout
Menomonie, WI

Acknowledgments

To Gene Gutman, thank you for allowing me to be a part of the development of the Supply Chain Management program, wishing you great success in the program.

To Jacqueline Bonneville and Korawan "Yin" Muangmode, my unexpected and treasured friends from class, I have so many fond memories of our time together.

Sadie Gunderson, best friend, confidant and biggest cheerleader, your friendship means so much to me.

To my parents for being such wonderful role models and providing such endless support, I can't ever thank you enough for all that you do.

Special thanks to my husband Jim, I couldn't have done this without you and to my daughter Clara for being such a wonderful distraction.

Table of Contents

List of Tables

Chapter I: Introduction

The University of Wisconsin-Stout (UW-Stout) is a comprehensive, polytechnic institution. UW-Stout prides itself on providing hands-on, career-focused academic offerings to its students. More than half of the program offerings at UW-Stout are not offered at any other UW System institution. Determining the array of academic programs offered at UW-Stout is a comprehensive process that involves incorporation into UW-Stout's long-range curriculum plan following approval from the Provost's council. Program development must also follow the University of Wisconsin System Guidelines for Academic Program Review and Regent Policy ACIS 1.0, Academic Planning and Program Review.

This study documents the process of obtaining approval for implementation of the Bachelor of Science program in Supply Chain Management at UW-Stout. The decision to seek approval for the implementation of the Bachelor of Science in Supply Chain Management was based on the need for supply chain professionals, support from the Supply Chain Management Advisory Board, and the success of the Supply Chain Management minor and certificate. It was determined that there was a need for a Bachelor of Science program in Supply Chain Management as the comparable programs offered in the UW System are Bachelor of Business Administration (BBA) degrees. The Bachelor of Science program in Supply Chain Management at UW-Stout program, would present a unique and unduplicated offering within the UW System.

Statement of the Problem

UW-Stout needed to receive approval for the implementation of the Bachelor of Science in Supply Chain Management.

Purpose of the Study

The purpose of the study is to document the process of obtaining approval of the Bachelor of Science program in Supply Chain Management at UW-Stout.

Definition of Terms

Academic Affairs Administrative Team (AAAT). The team exists to provide recommendations to the Provost on matters concerning academic programming and instruction at the University. It also serves as a communication device to assure understanding of academic activities.

Board of Regents. The 18-member governing board of The University of Wisconsin System as established under Chapter 36 of the Wisconsin State Statutes. The Board appoints the President of the UW System, the chancellors of the 13 universities, the chancellor of UW-Extension and UW Colleges, and the deans of the 13 colleges. The Board also sets admission standards, reviews and approves university budgets, and establishes the regulatory framework within which the individual units operate.

Curriculum and Instruction Committee (CIC). One of UW-Stout's standing committee of the faculty senate that is responsible to review, develop, and recommend policy and guidelines regarding curriculum to the Faculty Senate.

Faculty Senate. The Faculty Senate actively participates in institutional policy development. It is the primary governing body for the faculty on campus and is an organization through which the faculty can assert their primary responsibility for all academic and educational, as well as faculty personnel matters.

Planning and Review Committee (PRC). The committee is responsible to review the UW-Stout academic plan and to review entitlements to plan and recommend Faculty Senate approval or rejection of such plans.

UW System. The University of Wisconsin System is one of the largest systems of public higher education in the country, serving more than 175,000 students each year and employing more than 32,000 faculty and staff statewide. The UW System is made up of 13 four-year universities, 13 freshman-sophomore UW Colleges, and statewide UW-Extension.

Limitations of the Study

This study does not document the implementation of the Bachelor of Science in Supply Chain Management or the joint program review that occurs five years after implementation.

Chapter II: Literature Review

Introduction to Supply Chain Management

Supply Chain Management is defined by Wisner, Leong and Tang (2005) as "...the idea of coordinating or integrating a number of product-related activities among supply chain participants to improve operating efficiencies, quality and customer service in order to gain a sustainable competitive advantage for all the organizations involved in this collaboration" (p. 8). The effective management of supply chains is important because all of the products that we use reach us via a type of supply chain.

Although principles related to supply chain management were present as early as the 1950's with the emergence of mass production, it wasn't until the 1980's when the term supply chain management was used. This time period saw an increase in global competition and the need for manufacturers to more efficiently manage their inventory, reduce costs, improve quality

and provide better customer service (Wisner et al., 2005). It was during this time that managers began realizing the importance of effective supply chain management. According to Handfield and Nichols (1999) the supply chain includes internal functions, upstream suppliers and downstream customers. Internal functions are wide-ranging depending on the industry, but can include tasks such as assembly, production, customer service as well as the supervision and management of the employees performing the internal functions. Examples of upstream external functions include purchasing and materials management. Forecasting, contract management, planning and scheduling are tasks that are associated with purchasing and materials management. A company's external downstream is related to distribution to the final customer. Handfield and Nichols (1999) noted that a newer trend in supply chain management is the recycling at the end of a product's life cycle. The importance of supply chain management has been emphasized by the increasingly competitive and global market. The effective management of supply chain management requires firms to work together. This is a task that isn't easily accomplished and requires qualified supply chain management professionals to manage. According to Duncan (2008) since companies have begun adopting a holistic approach to managing their supply chains, there has been a significant decrease in inventory to sales ratios and the percentage of logistics costs as a percentage of gross domestic product has improved. Although there has been a great amount of improvement over a short period of time, the field will continue to grow evolve.

Due to the rapid growth and evolution of this field, there has been a need for qualified supply chain managers. McCrea (2009) stated that the ability to find qualified supply chain professionals is a challenge. The lack of qualified supply chain professionals is attributed to the complex and changing nature of the supply chain management field. The supply chain

management field has evolved from distribution to logistics to its current state. This evolution of the field means that academic institutions need to quickly respond and adjust their curriculum. Institutions need to work collaboratively with industry to identify their expectations and qualifications for the supply chain management professionals that they hire (Gonzalez, Quesada, Gourdin, & Hartley, 2007). Kerr (2008) asserts that supply chain professionals must have a broad and extensive set of skills that include stronger analytic skills and an understanding and appreciation for national cultures. A challenge is to not only to rely on textbook education, but to promote global awareness and cultural acceptance in the curriculum.

Since companies are realizing the impact effective supply chain management can have on their financial performance, the scope and responsibilities of supply chain management professionals are expanding. In fact, it is not uncommon to find a chief supply chain officer as part of the senior executive team (McCrea, 2009). This expectation for supply chain management professionals requires a broad set of skills that includes industry experience, project management, purchasing, negotiation and experience managing the supply base. Companies and supply chain management professionals are realizing the importance of continuing education to obtain these skills. Continuing education has been proven effective to build upon an existing skill base and has improved compensation for supply chain professionals. According to Stundza (2009) a bachelor's degree could increase compensation by $35,000 more than those without a degree and $22,000 more for those with a master's degree. In recent years, institutions have been successful with their continuing education or executive education offerings related to supply chain management. Penn State University supply chain management executive education grew 101% over a two-year period (McCrea, 2010). Clarkson University has identified a need for an MBA program in Supply Chain Management and began offering the program in the fall of 2009.

This program will be offered online and targeted to the working professional that is looking for additional education to take their career to the next level (Tambone, 2009).

Not only have institutions experienced a growth in executive education related to supply chain management, they are experiencing an increase in the requests for more customized instruction for companies. This includes the offering of online courses, hybrid courses and certifications. The growth of executive education has been attributed to companies realizing the importance of obtaining a competitive advantage through effective supply chain management (Kerr, 2008). Graybar, a distributor of electrical and communication products worked with Rutgers University to develop a certificate program for supply chain management. The goal of the certificate program was to combine education with real-world applications in order to maximize the company's return on investment. The idea of this certificate program was born from a senior executive that was participating in continuing education and identified a gap between what was being taught in the classroom and the reality what was happening in the work force (Avery, 2008).

The Institute for Supply Management (ISM) is doing its part to address the concern for lack of qualified supply chain management professionals with the launch of their Certified Professional in Supply Management (CPSM) program. The goal of this program is to make the CPSM a critical qualification to succeed in the supply chain management industry (Kerr, 2008).

Academically, logistics and supply chain management disciplines are beginning to shift from engineering to business departments as supply chain management is becoming more cross-disciplinary. Firms are beginning to realize that the principles are not related exclusively to manufacturing. Retail operations are becoming more aware of the impact suppliers can have on their profit. While retail operations once focused more on the customer, the emergence of online

sales, increased competition and the declining economy have forced the retail industry to focus on establishing relationships with employees and suppliers (Richey, Jr., Skinner & Autry, 2007).

The importance of supply chain management has also been identified for marketing majors. Ellinger (2007) has indicated that supply chain management should be incorporated into marketing programs. This incorporation would help marketing majors obtain an understanding of the importance of products getting to the right place at the right time. In 2007, the University of Georgia was one of a few institutions that required an introductory course on supply chain management for all marketing majors (Ellinger, 2007).

Another challenge in educating supply chain management professionals is the varying ways companies and industries define supply chain management. Since there are different definitions of supply chain management, it is difficult for standard curriculum development. McCrea (2008) suggests that companies and institutions forge strong partnership to allow for company input in curriculum development and provide an opportunity for students to obtain real world work experience. This strategy is echoed by Trent (2007) to develop close relationships with a select number of institutions to recruit interns and recent graduates. An internship program allows for a company to evaluate potential permanent hires while a student is finishing up their course work. Companies need to not only focus on their immediate talent acquisition, but also to focus on growing their talent for years to come.

Managing the human side of supply chain management is one of the trends identified for the future of supply chain management. Supply chain leaders will not only be concerned with acquiring qualified talent, but also with encouraging employees to further their education and obtaining new credentials to keep up with the changing field. The source of continuing education will become more on-demand and customized to meet the specific needs of the individual

employee (Trent, 2007). Wisner et al. (2005) considers an emerging trend the greening of supply chains. There will be increased pressure from consumers and legislation that will require companies to analyze regulations and work with firms and suppliers to ensure they comply with appropriate standards and regulations. The greening of the supply chain will also put a stronger focus on the end of the life cycle with firms becoming more concerned with the recycling and recovering efforts of their product.

Another trend of supply chain management will be long-term contracts and firms relying on a small number of suppliers. Firms will develop close relationships with quality suppliers and execute long-term contracts to obtain a competitive advantage (Trent, 2007).

Technology will continue to play an important role in supply chain management. There will always be an emphasis in business to reduce costs and companies continue to explore software solutions to reach this goal. Wisner et al. (2005) state that in the supply chain management industry the focus will be on software systems that can provide access to the most up-to-date information to more accurately forecast and track merchandise. These software solutions will allow firms to be more responsive and meet the needs of customers.

With the continued focus of reducing costs and effective management of supply chains comes the emergence of supply chain consultants and companies outsourcing the supply chain functions. UPS has expanded their offerings to include freight services and supply chain consulting. Outsourcing of supply chain functions can include transportation, purchasing, software solutions and warehousing.

Chapter III: Methodology

UW-Stout needed to receive approval for the implementation of the Bachelor of Science in Supply Chain Management by following the University of Wisconsin System Guidelines for

Academic Program Review and Regent Policy ACIS 1.0, Academic Planning and Program Review. The decision to seek approval for the implementation of the Bachelor of Science in Supply Chain Management was based on the need for supply chain professionals, support from the Supply Chain Management Advisory Board, and the success of the Supply Chain Management minor and certificate.

The related Production Operations concentration within the Engineering Technology major was established in 1999, followed by a Certificate and Minor in Supply Chain Management, established in 2004. In response to student interest and employer demand, the Supply Chain Management Concentrations within Business Administration and Engineering Technology were established in 2008 and 2006 respectively. In 2009, there were 47 students that declared Supply Chain Management or Production Operations as their concentration or minor. The increasing enrollment trend and popularity of this program motivated 90 graduates to choose these concentrations or minors since their inception. Since the implementation of the Supply Chain Management program, ten students have declared Supply Chain Management as their major.

The idea for the new Supply Chain Management program was reviewed by the Provost's Council and integrated into UW-Stout Academic Plan. The academic plan is part of the university-wide strategic planning model and is reviewed and updated on a biannual basis. After receiving institutional approval, the efforts began on the new program proposal that includes the entitlement to plan and authorization to implement.

Entitlement to Plan

The entitlement to plan is the first step in the UW System Program Review Guidelines and Regent Policy ACIS 1.0, Academic Planning and Program Review. The entitlement to plan documents the need for the program; identifies the learning outcomes; provides a brief overview

of the program curriculum; details how the program relates to the institutional mission, plans and objectives; compares how the program relates to other academic programs; and documents any unusual resources. The entitlement to plan requires significant effort and research to demonstrate the need for the program and identify comparable programs in the UW System, regionally and nationally. The need for the Supply Chain Management program was demonstrated through current enrollment in the Supply Chain Management minor and certification, support from the Supply Chain Management Advisory Board, the lack of comparable programs in the region, and U.S. Department of Labor statistics. The U.S. Department of Labor predicted growth during 2006-2016 in careers related to Supply Chain Management.

The entitlement to plan went through a series of reviews and approvals at UW-Stout as detailed in Table 1. Following the approvals at UW-Stout, the entitlement to plan was submitted to UW System for review and approval. Part of the review process includes inviting all UW System institutions to comment on the finalized entitlement to plan (Appendix A). On April 10, 2009, UW-Stout received approval from the UW System Associate Vice President for Academic & Faculty Programs and comments from four UW System institutions (Appendix B). This exercise is completed to assess how the proposed program fits into the system-wide program array. After receiving institutional and system approval, the work began on developing the authorization to implement document.

Table 1

Approval sequence for Entitlement to Plan

Approval	Date
Program Director	September 30, 2008
Dean	October 2, 2008
Planning and Review Committee (PRC)	October 10, 2008
Curriculum and Instruction Committee (CIC)	October 16, 2008
Academic Affairs Administrative Team (AAAT)	November 4, 2008
Faculty Senate	November 18, 2008
Provost	December 6, 2008
Chancellor	December 8, 2008
UW System	April 10, 2009

Authorization to Implement

In comparison to the entitlement to plan, the authorization to implement is a more comprehensive document as detailed in Table 2.

Table 2

Requirements for Authorization to Implement New Program

Section	Requirements
Program Identification	Title of Proposed Program Department College, School or Functional Equivalent Timetable for Initiation Delivery
Context	History of Program Instructional Setting of Program Relation to Mission Statement and Strategic Academic Plan
Description	Program Description Objectives Curriculum Interrelationship with Other Curricula Accreditation Requirement Diversity Collaboration Delivery Method
Need	Comparable Programs Regional, State and National Needs Student Demand – Future Enrollment Collaborative or Alternative Program Exploration
Assessment and Advising	Assessment Advising Access for Individuals with Disabilities
Personnel	Current Faculty Requirements Additional Faculty Requirements Academic Staff Classified Staff
Academic Support Services	Library Resources Access to Student Services Access to Library and Learning Resources
Facilities-Equipment	Capital Resources Capital Budget Needs Security
Finance	Operating Budget and Budget Narrative Operating Budget Reallocation Extramural Research Support Costing Methodology Commitment to Maintain the Program

Although all the requirements for the authorization to implement are essential to the approval of the program, there are certain requirements that require additional effort and consideration when developing. These requirements include Relation to Institutional and System Mission, Market Research, Collaboration, Diversity, Budget and Outside Reviews. These six requirements are in line with the principles established in the Regent Policy ACIS-1.0. These principles include:

- Using resources effectively and efficiently to develop and maintain high quality academic programs.
- Providing the highest quality, most cost-effective university system possible for the citizens of Wisconsin.
- Ensuring that academic programs are consistent with the institutional and UW System missions.
- Reducing unnecessary program duplication.
- Maintaining excellent undergraduate basic arts, humanities, and science programs at each institution.

UW-Stout has a select mission that is characterized by a distinctive array of programs leading to professional careers focused on the needs of society. When addressing the relation to institutional and system mission it was determined that the creation and implementation of the Bachelor of Science Supply Chain Management program will add to the distinctive array of programs at UW-Stout and will also help meet the needs of the workforce.

The market research aspect of the authorization to implement focused on evaluating the competitive environment, the labor force environment and the demand. This was accomplished by completing a comprehensive scan of related programs at other UW System institutions,

polytechnic peer institutions as well as regional and national programs. After completing this scan, it was determined that many of the comparable programs offered in the UW System are Bachelor of Business Administration (BBA) degrees. The UW-Stout program, however, is designed as a Bachelor of Science program in Supply Chain Management and thus presents a unique and unduplicated offering within the UW System. Although there are programs offered at other UW System institutions that include components of Supply Chain Management, this Bachelor of Science program would fill a void that currently exists in the rapidly developing I-94 corridor and across the Wisconsin, Minnesota, Michigan, and Illinois region. The labor force environment was assessed through the September 2008 study entitled "Wisconsin Next Generation Manufacturing Survey where 53% of the respondents in West Central Wisconsin and thirty-six percent of respondents state-wide ranked Supply Chain Management as highly important to their organization's success over the next five years. The U.S. Department of Labor – Bureau of Statistics predicted growth during 2006-2016 in careers related to Supply Chain Management. The final component of the market research requirement was the demand that was demonstrated by the anticipated enrollment figures for the first five years. These predications are based on UW-Stout institution-wide 80% retention rate of continuing students, the spring program start date, general institutional data regarding enrollment, retention, placement and graduation as well as data derived from studying the enrollment trends in Supply Chain Management related concentrations and minors as demonstrated in Table 3.

Table 3

Anticipated Enrollment Figures

	Anticipated Enrollment Spring 2010	Actual Enrollment Spring 2010	2nd Year 2010-2011	3rd Year 2011-2012	4th Year 2012-2013	5th Year 2013-2014
New Students Admitted	5	10	15	20	25	25
Continuing Students	0	0	4	13	25	36
Total Enrolled	5	10	19	33	50	61
Graduating Students	0	0	2	2	5	10

Collaboration was a strong component throughout every stage in the program development process. The program began with strong collaboration with industry due to the Supply Chain Management Advisory Board. The advisory board is comprised of executives from regional companies in the supply chain field. These companies have employees that are interested in obtaining degrees in Supply Chain Management. Due to this demand, the advisory board has endorsed the development of this program. Collaboration opportunities were also explored with Auburn University and Western Michigan University and both universities are interested in exchanging coursework with UW-Stout. In addition, UW-Stout has had conversations with UW-Superior and Northeast Wisconsin Technical College (NWTC) to explore collaboration opportunities and articulation agreements.

The diversity section required reviewing minority enrollment data for similar programs at UW-Stout and establishing minority enrollment goals for the Supply Chain Management. The program specific curriculum and general education curriculum for this program has been developed to ensure that diverse perspectives have been included in the curriculum and that students are prepared to work in a diverse workplace.

The budget requirement was developed to explain the current budgetary situation. Full time employees (FTE) that will support the new program are existing faculty and staff who will continue teaching cross-disciplinary courses counting for graduation in existing programs. These same courses will accommodate the students who will be enrolled in the new program without compromising acceptable and pedagogically appropriate teacher-student ratios. Existing faculty within the Business Department will also teach the new courses that are listed in the proposed curriculum and no new hires are therefore anticipated. The demand for the new and existing courses will be gradual as enrollment increases over a three-to-five year period.

The final essential requirement for the authorization to implement is the outside reviews. The role of the reviewers is to provide feedback on curriculum, need for the program, and strengths and challenges of the program. Faculty members at Western Michigan University and Auburn University provided outside reviews for the program. The feedback from the reviewers was taken into consideration when finalizing the Supply Chain Management Program.

The authorization to implement was reviewed and revised based on feedback from the UW System Academic Planner and the UW-Stout Associate Vice Chancellor. The authorization to implement (Appendix C) was routed through the appropriate approval channels as detailed in Table 4.

Table 4

Approval sequence for Authorization to Implement

Approval	Date
Program Director	April 2009
Program Committee	April 2009
Dean	April 2009
Curriculum and Instruction Committee (CIC)	May 2009
Planning and Review Committee (PRC) – Information Only	May 2009
Academic Affairs Administrative Team (AAAT)	June 2009
Provost	June 2009
Chancellor	June 2009

Executive Summary

Following finalization of the authorization to implement the executive summary was drafted. The executive summary contains program description, program goals and objectives, relation to institutional mission, program assessment, need, projected enrollment, comparable programs, collaboration, diversity, evaluations from external reviewers, and resource needs. The executive summary was finalized and edited by UW System academic planners and submitted to the UW System Associate Vice President. The Associate Vice President submitted the finalized executive summary (Appendix D) to the Board of Regents. The UW-Stout Provost presented the program proposal to the Education Committee on December 10, 2009. The Education Committee approved the program and forwarded the executive summary to the full board for action. On December 11, 2009, the board approved the proposal to implement the Supply Chain Program at UW-Stout.

Following Board of Regents approval, the next steps in the process including the implementation of the program and the joint review that takes place five years from the implementation of the program.

Chapter IV: Discussion

Due to the rapidly growing field of supply chain management there is a shortage of qualified supply chain professionals. As a result, companies have also increased their need for executive education related to supply chain management in order to enhance their employees' credentials. The shortage of qualified professionals has provided an opportunity for institutions to grow and expand their supply chain management offerings. Institutions can benefit from developing close relationships with firms to provide internship programs and real world experiences for their students. UW-Stout decided to seek approval of a Bachelor of Science in Supply Chain Management making it a unique Bachelor of Science offering in the UW System. The university was granted approval by the Board of Regents in December 2009 to implement the program.

Limitations

This study does not document the implementation of the Bachelor of Science in Supply Chain Management or the joint program review that occurs five years after implementation.

Conclusions

The Bachelor of Science in Supply Chain Management at UW-Stout has the opportunity to grow to one of the premiere supply chain management programs in the Midwest. With the program's supply chain management advisory board, the program has developed strong industry alliances. These alliances will prove critical in providing opportunities to students for work experience and permanent employment. The program will also benefit from receiving feedback

on curriculum from the supply chain advisory board. The supply chain management field is and has been a rapidly changing field that provides the challenge for curriculum to stay up-to-date. With feedback on curriculum from industry experts, the graduates will enter the work force more prepared and strengthen the relationship between companies and the program. With high employer satisfaction rates and high graduate placement rates, the enrollment for the program will continue to grow.

The University of Wisconsin-Stout has an opportunity to expand the supply chain management offerings to include more online offerings and continuing education offerings. Companies are looking for just-in-time, hybrid and customized instruction courses for its employees to advance their careers. While the expansion into these offerings may take considerable fiscal and human resources to implement, it would be a source of considerable revenue.

With the current economy situation, growing competition and increased pressure for reducing costs, more companies will begin to focus on effectively managing their supply chains. This need requires qualified supply chain professionals and the Bachelor of Science program in Supply Chain Management at UW-Stout is well positioned to meet this need.

References

Avery, S. (2008). Graybar develops educational program with customers in mind. *Purchasing, 13*725-26. Retrieved from Business Source Premier database.

Duncan, D. (2008, September 2). Why Logistics Education is Vital to Business. *Journal of Commerce (15307557)*, p. 7. Retrieved from Business Source Premier database.

Ellinger, A. (2007). Making Supply Chaing Management Relevant for Marketing Majors. *Marketing Education Review*, *17*(1), 101-106. Retrieved from Business Source Premier database.

Gonzalez, M., Quesada, G., Gourdin, K., & Hartley, M. (2008). Designing a supply chain management academic curriculum using QFD and benchmarking. *Quality Assurance in Education,* 16(1), 36-60. Retrieved from Emerald database.

Handfield, R. & Nichols, Jr.,E. (1999). *Introduction to Supply Chain Management*. Upper Saddle River, New Jersey: Prentice-Hall.

Kerr, J. (2008). A New Direction for Executive Education?. *Supply Chain Management Review*, *12*(3), 30-38. Retrieved from Business Source Premier database.

McCrea, B. (2008). Continuing Education Update. *Logistics Management*, *47*(7), 65S-68S. Retrieved from Business Source Premier database.

McCrea, B. (2009). Supply Chain Education: Bracing for the Future. *Logistics Management*, *48*(5), 56S-60S. Retrieved from Business Source Premier database.

McCrea, B. (2010). The ROI from Executive Education. (cover story). *Supply Chain Management Review*, S1-S5. Retrieved from Business Source Premier database.

Richey, J., Skinner, L., & Autry, C. (2007). A Multilevel Approach to Retail Management Education: Integrating Customer and Supply Chain Perspectives. *Marketing Education Review*, *17*(2), 27-43. Retrieved from Business Source Premier database.

Stundza, T. (2009). One way to get a raise: Take a course. *Purchasing*, *138*(12), 50-52. Retrieved from Business Source Premier database.

Tampone, K. (2009). Clarkson Plans New Online MBA for Working Professionals. *The Central New York Business Journal.* 10. Retrieved from Business Source premier database.

Trent, R. (2007). *Strategic Supply Management: Creating the Next Source of Competitive Advantage*. Fort Lauderdale, Fl: J.Ross Publishing.

Wisner, J., Leong, K. & Tan, K. (2005). *Principles of Supply Chain Management: A Balanced Approach.* Mason, Ohio: South-Western Thomson.

Appendix A: Request for Entitlement to Plan

Bachelor of Science in Supply Chain Management
University of Wisconsin-Stout
December 2008

1. What is the need for this program?

Businesses are requiring specialized skills in Supply Chain Management (SCM). This is being driven by pressures of globalization, cost control, increased customer service levels and high quality requirements. The supply chain represents approximately 70 to 80 percent of the cost structure of a typical company. It requires both broad and deep knowledge to analyze data, make decisions and execute critical business processes across the supply chain. More importantly, the complexity, integration and interaction of each supply chain process drives the necessity of operating an efficient supply chain in order to compete.

Supply Chain Management as defined by the Council of Supply Chain Management Professionals, (CSCMP), "encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies."

The U.S. Department of Labor - Bureau of Statistics predicts growth during 2006-2016 in careers related to Supply Chain Management including wholesale trade and distribution, management, warehousing, transportation, purchasing managers, inventory managers, buyers and import/export agents. Generally, opportunities will be best for applicants with postsecondary education for many management, business and financial operations occupations. For upper-level and senior management positions, many employers look for candidates with a bachelor's degree or higher, along with some previous managerial experience.

UW-Stout currently offers several programs that contain Supply Chain Management content. The Bachelor of Science Degree in Supply Chain Management will be built upon the following programs currently offered by the university.

- Bachelor of Science in Business Administration - Supply Chain Management Concentration
- Bachelor of Science in Engineering Technology – Supply Chain Management Concentration
- Bachelor of Science in Engineering Technology – Production Operations Concentration
- Minor in Supply Chain Management
- Certificate in Supply Chain Management

UW-Stout has an Advisory Board for the existing supply chain curricula listed above. The Advisory Board is made up of primarily Vice President and Director level people from the following companies:

- 3m
- Ariens Corporation
- IBM
- Lockheed Martin
- Mercury Marine
- Oshkosh Truck

The regional need for the Supply Chain Management program is unanimously endorsed by the UW-Stout Advisory Board.

2. Identify the learning outcomes or provide a brief overview of the curriculum for this program.

The purpose of this program is to prepare students for a career in Supply Chain Management and will meet the growing need for qualified individuals that have specialized training in Supply Chain Management. The program will address aspects essential to supply chain management such as developing supply chain strategies and processes, improving customer service, quality and delivery performance, minimizing total costs of goods and services, applying best practices and applying state of market technologies to improve business performance. Specific program objectives include:

- Students will identify the requirements for careers in supply chain management
- Students will analyze and solve supply chain problems e.g., total cost of ownership, facility location and design, lean supply chain, supply chain cost to serve, material and inventory requirements, transportation, warehousing, distribution, order processing, lot quantity, capacity requirements, scheduling, suppliers, global logistics, and impact to financial statements.
- Students will simulate the operation and integration of multiple business processes that span the supply chain.
- Students will gain hands-on supply chain experience through applied learning and internships with business and industry.
- Students and faculty members will interact with business and industry through applied research, continuing education and scholarly activities to enhance the learning experience.

The emphasis of the program will be in Supply Chain Management. The curriculum will be heavily influenced by the Engineering Technology and Business Administration programs, integrating and building upon the Concentrations of each as well as the Minor and Certificate in Supply Chain Management. Emphasis will be placed on supply chain strategy, processes, integration, simulation, analysis and technology. There will be close cooperation with the faculty from math, science, engineering and business disciplines. Due to the global nature of

Supply Chain Management, there will also be world geography components in the proposed curriculum.

The B.S. Supply Chain Management program will seek accreditation by the Association for Collegiate Business Schools and Programs (ACBSP). ACBSP is the leading specialized accreditation association for business education supporting, celebrating, and rewarding teaching excellence. The association embraces the virtues of teaching excellence and emphasizes to students that it is essential to learn how to learn. ACBSP acknowledges the importance of scholarly research and inquiry and believes that such activities facilitate improved teaching. Institutions are strongly encouraged to pursue a reasonable mutually beneficial balance between teaching and research. And further, ACBSP encourages faculty involvement within the contemporary business world to enhance the quality of classroom instruction and to contribute to student learning.

3. How does this new degree program relate to the institutional mission, strategic plan, goals and objectives?

According to the UW-Stout mission statement, UW-Stout is characterized by a distinctive array of programs leading to professional careers focused on the needs of society. UW-Stout is a comprehensive, career-focused polytechnic university where students, faculty, and staff use applied learning, scientific theory and research to solve real-world problems, grow the state economy and serve society. The creation and implementation of the Bachelor of Science Supply Chain Management program will add to the distinctive array of programs and will also help meet the needs of the workforce as expressed by the UW-Stout Supply Chain Management Advisory Board and the growth predicted by the U.S. Department of Labor.

The Bachelor of Science in Supply Chain Management will lead to professional careers in industry and commerce through the studies of engineering, technology, and business. The UW-Stout mission statement states: *The university offers undergraduate and graduate programs leading to professional careers in industry, commerce, education and human services through the study of technology, applied mathematics and science, art, business, industrial management, human behavior, family and consumer sciences, and manufacturing-related engineering and technologies.*

The implementation of this program will also provide opportunities for collaboration on several levels that is in line with the UW-Stout mission statement that encourages cooperation. *The university cooperates with the other University of Wisconsin institutions; the Wisconsin Technical College System, and other state and national agencies; and participates in statewide, national, and international programs.*

The creation of the Bachelor of Science in Supply Chain Management program is also part of the UW-Stout Academic Plan 2008-2012.

4. How does this new degree program relate to other academic programs in the UW System, the region and, if appropriate the nation?

Due to the demand of qualified individuals in the Supply Chain Management, there has been an increasing trend for universities to broaden their existing Operations Management programs to include Supply Chain Management in the degree title. Many of the comparative programs offered in the UW System are Bachelor of Business Administration (BBA) degrees. This proposed program would be a Bachelor of Science program in Supply Chain Management which would be unique to the UW System. Although there are programs in the UW System that include components of Supply Chain Management, this Bachelor of Science program would fill a void along the rapidly developing I-94 corridor and within the Minnesota, Wisconsin, Michigan, and Illinois region.

Comparable Programs in Wisconsin

UW-Superior	• B.S. Transportation and Logistics Management
UW-Madison	• Supply Chain Leadership Certificate
	• Supply Chain Management Specialization
UW-Milwaukee	• B.B.A. Supply Chain and Operations Management
UW-Oshkosh	• B.B.A. Supply Chain and Operations Management
UW-Whitewater	• B.S. Operations Management
UW-EauClaire	• B.B.A. Management & Marketing – Operations/Materials Management

Comparable Programs Outside of Wisconsin

Georgia Tech	• Global Supply Chain Management Certificate Program
Michigan State	• B.S. Supply Chain Management

The Ohio State University	• **Supply Chain and Logistics Management - Executive Education**
Penn State	• B.S. Supply Chain and Information Systems
St. Cloud State University	• Operations Management Concentration
University of Tennessee – Knoxville	• B.B.A Logistics
	• Integrated Supply Chain Management Certificate
University of Minnesota	• B.S.B. Supply Chain Management
Western Michigan	• B.B.A. Integrated Supply Matrix Management

Comparable Programs Polytechnic Peers

Arizona State University Polytechnic (Polytechnic Peer)	• B.S. Supply Chain Management
Illinois Institute of Technology (Polytechnic Peer)	• Bachelor of Industrial Technology and Management
Michigan Technological University (Polytechnic Peer)	• Operations and Systems Management

5. If this program will be supported by unusual resources, please describe?

Due to the existing Supply Chain Management concentrations in Engineering Technology and Business Administration programs, this proposal would require a minimal number of additional courses and FTEs.

Appendix B: Entitlement to Plan Approval

UNIVERSITY OF WISCONSIN SYSTEM

Academic & Student Services
1640 Van Hise Hall
1220 Linden Drive
Madison, Wisconsin 53706-1559
(608) 262-8778
(608) 263-2046 FAX
e-mail: acss@uwsa.edu
website: www.uwsa.edu/acadaff/

April 10, 2009

TO: Julie Furst-Bowe, Provost & Vice Chancellor
UW-Stout

FROM: Stephen H. Kolison, Jr.
Associate Vice President for Academic & Faculty Programs

RE: Entitlement to Plan a BS in Supply Chain Management

In a memo dated February 19, 2009, I invited all UW System institutions to comment on your proposal for entitlement to plan a BS in Supply Chain Management. I am enclosing the four responses we have received. The proposed program is potentially a valuable addition to the course array at UW-Stout, and I am pleased to grant your request for entitlement to plan.

As you plan the program, please note and be responsive to the comments regarding sustainable demand in the region you serve. In your planning efforts, please document regional need through data and demonstrable employer need based on unfilled positions and economic growth in that area. As there are other UW institutions offering similar degrees, there might be a special incentive for collaboration to best meet the needs of the employers and the students.

As stipulated in Step 2.A of *Academic Program Review Guidelines*, institutions must complete three reviews before the program proposal can be submitted to UW System for authorization:

1. Review by a three-person Program Review Committee
2. Review by consultants from outside the institution
3. Review by the appropriate governance bodies.

You may complete these reviews in any sequence. If the review process is not completed by Fall 2014, the entitlement will expire unless an extension is granted by this office.

In addition, the *Guidelines* have been updated to reflect the regents' request that the completed proposal include information on mission congruence, collaboration, market research, instructional technology and distance education. Special attention should also be given to the development of measurable program objectives, and effective assessment tools, to facilitate meaningful review of the quality of the program both at the five-year joint review stage, and subsequent campus program reviews, should the program be approved and implemented. To assist in developing the document requesting authorization to implement a new academic program, the *Guidelines* include a format for the authorization proposal document and a format for budget information. The current version of the *Guidelines* is available on-line at www.uwsa.edu/acadaff/acis/planning/.

Academic Program Planning is a collaborative process between our office and the campus. I have asked Carmen Faymonville to represent UW System on the three-person Program Review Committee. Please contact her at 608-262-6831 or cfaymonville@uwsa.edu so that we can be of assistance throughout the process of development of the authorization proposal.

Enclosures

cc: Rebecca R. Martin, Senior Vice President for Academic Affairs
Charles W. Sorensen, Chancellor, UW-Stout
Provosts and Vice Chancellors
Sharon Wilhelm, Interim Associate Vice President, OPAR
Larry Rubin. Assistant Vice President
ACSS Program Planning Team
Campus Academic Program Planning & Review Liaisons
Provost's Executive Staff Assistants

Appendix C: Authorization to Implement

Authorization to Implement a Bachelor of Science Program in Supply Chain Management at UW-Stout

1. PROGRAM IDENTIFICATION

1.1 Title of Proposed Program

Bachelor of Science in Supply Chain Management

1.2 Department or Functional Equivalent

Department of Business

1.3 College, School, or Functional Equivalent

College of Management

1.4 Timetable for Initiation

The program will begin spring semester, 2010.

1.5 Delivery

The courses will initially be offered on campus. The program will migrate to being offered online and on campus. Some courses are currently offered online.

2. CONTEXT

2.1 History of Program

The Bachelor of Science in Supply Chain Management program will build on the existing Supply Chain Management concentrations offered for the Engineering Technology and Business Administration Bachelor of Science programs as well as the Production Operations concentration offered for the Engineering Technology Bachelor of Science Program. In addition to the Bachelor of Science concentrations, a Supply Chain Management emphasis, certificate and minor is offered.

The Production Operations concentration was established in 1999 with the Supply Chain Certificate and Minor established in 2004. The Supply Chain Management Concentrations for Business Administration and Engineering Technology were established in 2006 and 2009 respectively. There are 47 students currently enrolled that have declared Supply Chain Management or Production Operations as their concentration or minor and 90 students that have graduated with these concentrations or minors since their inception.

The impetus for developing the Supply Chain Management Bachelor of Science program was the success of the related concentrations and minors as well as the suggestions received from the Supply Chain Management Advisory Board. The advisory board is comprised of executives from regional companies in the supply chain field. These companies have employees that are interested in obtaining degrees in Supply Chain Management. Due to this demand, the advisory board has endorsed the development of this program.

2.2 Instructional Setting of Program

The Business Department and the Operations and Management Department in the College of Management will provide the courses in this program. Courses will also be provided by College of Science, Technology, Engineering and Math.

2.3 Relation to Mission Statement and Strategic Academic Plan

According to the University of Wisconsin-Stout mission statement, *UW-Stout is characterized by a distinctive array of programs leading to professional careers focused on the needs of society.* The creation and implementation of the Bachelor of Science Supply Chain Management program will add to the distinctive array of programs and will also help meet the needs of the workforce as expressed by the UW-Stout Supply Chain Management Advisory Board.

The Bachelor of Science in Supply Chain Management will lead to professional careers in industry and commerce through the studies of technology, business and manufacturing-related engineering. The UW-Stout mission statement states: *"University of Wisconsin-Stout is a career-focused, comprehensive polytechnic university where diverse students, faculty and staff integrate applied learning, scientific theory, humanistic understanding, creativity and research to solve real-world problems, grow the economy and serve a global society."*
This program has been designed with input from the industry that will support the graduates; their enthusiasm of the degree articulates well with the polytechnic tenet *offering a comprehensive curriculum that prepares graduates for professional careers.* The collaboration with industry in the development of the program and the Supply Chain Advisory Board also relates to the polytechnic tenet to *work closely with business, industry and other educational institutions to benefit the students and grow the economy.* The addition of a B.S. in Supply Chain Management is a natural extension of the B.S. in Business Administration. It is in direct alignment with the mission of the College of Management.

The implementation of this program will also provide opportunities for collaboration on several levels that is in line with the UW-Stout mission statement that encourages cooperation. *The university cooperates with the other University of Wisconsin institutions; the Wisconsin Technical College System, and other state and national*

agencies; and participates in statewide, national, and international programs. We have initiated discussions with other universities about collaboration opportunities.

The creation of the Bachelor of Science in Supply Chain Management program is also part of the UW-Stout Academic Plan 2008-2012.

3. DESCRIPTION

3.1 Program Description

The Bachelor of Science Program in Supply Chain Management will prepare students for a career in supply chain management. The program will address aspects essential to supply chain management including improving customer service, minimizing costs, best practices and the effective use of technology.

3.2 Objectives

The purpose of this program is to prepare students for a career in Supply Chain Management and will meet the growing need for qualified individuals that have specialized training in Supply Chain Management. The program will address aspects essential to supply chain management such as developing supply chain strategies and processes, improving customer service, quality and delivery performance, minimizing total costs of goods and services, applying best practices and applying state of market technologies to improve business performance. Upon completion of the supply chain management program the successful graduate will be able to:

- Integrate general education competencies into supply chain management professional studies and their personal lives
- Analyze markets and financial performance to provide leadership to supply chain business partners
- Design, manage and optimize critical components of supply chain systems, organization and operations
- Integrate engineering and manufacturing practices into global business strategies to improve financial and operational performance
- Apply ethics, business, management, engineering, operations and processes into diverse supply chain and business environments

The emphasis of the program will be in Supply Chain Management. The curriculum will be heavily influenced by the Engineering Technology and Business Administration programs, integrating and building upon key elements of each. Emphasis will be placed on supply chain strategy, processes, integration, simulation, analysis and technology. There will be close cooperation with the faculty from math, science, engineering and business disciplines. Due to the global nature of Supply Chain Management, there will also be world geography components in the curriculum. In addition, students will

participate in industry sponsored projects and complete a co-op experience as part of the program requirements.

3.3 Curriculum **124 Total Credits**

GENERAL EDUCATION REQUIREMENTS **42 Credits**

Communication Skills (8 credits)

ENGL	101	Freshman English – Comp	3 credits OR
ENGL	111	Freshman English – Honors I	
ENGL	102	Freshman English – Reading & Writing	3 credits OR
ENGL	112	Freshman English – Honors II	
SPCOMM	100	Fundamentals of Speech	2 credits

Analytical Reasoning Skills *** (6 credits)

MATH	123	Finite Math	4 credits
STAT	130	Statistics	2 credits

Health Enhancement and Physical Well-being (2 credits)

Humanities (9 credits)

Social and Behavioral Sciences (9 credits)

ECON	210	Principles of Economics	3 credits
GEOG	251	Introduction to Geography	4 credits

Natural Science (4 credits)

Technology (2 credits)

TCS	103	Information and Communication Technology	3 credits OR
MFGE	106	Impacts of Engineering Design	2 credits

General Education Electives ** (2 credits)

XXXX	XXX	2 credits

Note: By taking ECON 215 as an elective, students will be eligible for a Business Minor

PROGRAM REQUIREMENTS ***

Business and Management Core *** (28 credits)

*BUMKG	100	Introduction to Supply Chain Management	1 Credit
BUACT	206	Introduction to Financial Accounting	3 credits
BUACT	207	Introduction to Corporate/Managerial Accounting	3 credits

BULGL	318	Business Law I	3 credits
BUMKG	330	Principles of Marketing	3 credits
BUMIS	333	MIS Decision Support Systems	3 credits
BUACT	340	Business Finance	3 credits
BUMGT	304	Principles of Management	3 credits
**INMGT	400	Organizational Leadership	3 credits
ENGL	320	Introduction to Business Writing	3 credits OR
ENGL	415	Technical Writing	3 credits

Supply Chain Management Core *** (54-credits)

*Engineering, Operations and Processes *** (39-credits)*

CADD	112	Principles of Engineering Drawing	3 credits
MFGT	150	Introduction to Engineering Processes	3 credits
INMGT	200	Production/Operations Management	3 credits
INMGT	305	Resource Planning and Materials Management	3 credits
INMGT	320	Quality Tools	3 credits
INMGT	325	Quality Management	3 credits
INMGT	365	Project Management	3 credits
INMGT	440	Lean Enterprise	3 credits
BUMKG	438	Principles of Logistics	3 credits
BUINB	338	International Logistics	3 credits
BUMKG	337	Procurement, Sourcing and SCM	3 credits
*BUMKG	XXX	Negotiation and Supply Chain Contracts	3 credits

Select one of the following:			3 credits
MFGT	251	Polymer and Composite Processes	3 credits
MFGT	252	Material Removal and Forming Processes	3 credits
MFGT	253	Joining and Casting Processes	3 credits
POWER	260	Intro to Fluid Power	3 credits
ELEC	204	Electricity Fundamentals	3 credits

*Capstone Core *** (10-Credits)*

INMGT	314	Industrial Enterprise Practicum	3 credits
INMGT	405	Resource Planning Practicum	3 credits
BUMKG	439	Seminar Supply Chain Systems	3 credits
*BUMKG	XXX	Supply Chain Internship	1 credit

*Supply Chain Selectives *** (5-Credits)*

BUACT	335	Accounting for Management Decisions	3 credits
RC	381	Occupational Safety Loss Control	2-3 credits
TRHRD	360	Training Systems in Business and Industry	3 credits

INMGT	410	Six Sigma Quality Improvement Methods	3 credits
INMGT	350	Facility Planning	3 credits
INMGT	475	Advanced Program Management	3 credits
XXXXX	xxx	Other Approved	1-3

***Indicates a new Supply Chain Management Course.**
****Indicates a Global Perspective or Ethnic Studies Course**
*****A cumulative 3.0 GPA is required across Analytical Reasoning, Business and Management Core, and Supply Chain Management Core.**

Course descriptions can be found in Appendix A.

3.4 Interrelationship with Other Curricula

The emphasis of the program will be in Supply Chain Management. The curriculum will be heavily influenced by the Engineering Technology and Business Administration programs, integrating and building upon key elements of each. Emphasis will be placed on supply chain strategy, processes, integration, simulation, analysis and technology. There will be close cooperation with the faculty from math, science, engineering, social sciences, and business disciplines. Due to the global nature of Supply Chain Management, there will also be world geography components in the curriculum.

3.5 Accreditation Requirement

The B.S. Supply Chain Management program will seek accreditation by the Association for Collegiate Business Schools and Programs (ACBSP). ACBSP is the leading specialized accreditation association for business education supporting, celebrating, and rewarding teaching excellence. The association embraces the virtues of teaching excellence and emphasizes to students that it is essential to learn how to learn. ACBSP acknowledges the importance of scholarly research and inquiry and believes that such activities facilitate improved teaching. Institutions are strongly encouraged to pursue a reasonable mutually beneficial balance between teaching and research. And further, ACBSP encourages faculty involvement within the contemporary business world to enhance the quality of classroom instruction and to contribute to student learning.

Benefits of accreditation through ACBSP include:

- Reinforces a commitment to continuous improvement, innovation, and scholarship.
- Accredited status creates greater visibility for the institution.
- Accreditation creates a process for continuous departmental improvement.
- Accreditation keeps the programs current through curriculum development.
- Accreditation provides a forum for review and analysis of the business unit.
- Accreditation promotes an outcomes assessment process linking goals, activities, and outcomes.
- Accreditation creates the impetus for relevancy and currency of faculty, programs, and courses to best serve students.

- Accreditation creates the impetus for relevancy and currency of faculty, programs, and courses to best serve employers.

3.6 Diversity

Ensuring a diverse student and faculty/staff population in the Supply Chain Management program is important and essential to the growth and development of students, faculty and staff. This will require participating in a variety of university-wide and program initiatives with the goal of achieving inclusive excellence. The commitment to this effort is demonstrated by:

1. Vision Statement: UW-Stout, a respected innovator in higher education, educates students to be lifelong learners and responsible citizens in a diverse and changing world.

2. We Value: diversity of people, ideas, and experiences.

3. UW-Stout Enduring Goal 4: Recruit and retain a diverse university population.

4. UW System Inclusive Excellence Plan
   Participation in four developmental phases of Inclusive Excellence strategic plan.

5. Equity Scorecard Project
   Focuses on access, retention, excellence and institutional receptivity to serve underrepresented populations.

6. Focus 2015 Goal: Develop knowledge, respect, and validation of differing values, cultures and beliefs in students, faculty and staff.

   The anticipated benefits/outcomes of the Focus 2015 Goal statement are:
   - Impacts students, faculty and staff in all areas of the university
   - Better educational outcomes for all students (problem solving skills, creative thinking)
   - Better social outcomes for all students (helping to reduce discrimination, giving students the skills to be successful in the workplace and be good citizens)
   - Increased recruitment and retention of all faculty, staff and students – not just racial/ethnic minorities
   - Improvements in rations on surveys (QWL/JE survey, System climate survey)

7. More rigorous requirements in the areas of ethnic and global studies:

The university requires that you take racial and ethnic studies courses as preparation for being an engaged citizen in a highly diverse society. Courses examine the experiences of historically underrepresented U.S. racial/ethnic groups: African American, Hispanic/Latino, Asian American (with an emphasis on Southeast Asian American), and American Indian. Courses may draw from one or more of the following topics:

- Historical and ideological construction of race
- Racial/ethnic identity formation
- Racial impact on public policy
- Stratification of differences
- Exploration of students' cultural and racial/ethnic experiences

Racial and ethnic studies courses are identified as RESA and RESB. RESA courses devote 75%-100% of content to the above topics. Category RESB courses devote 50%-74% of content to the above topics.

1) The Racial and Ethnic Studies requirement is 6 credits.
2) A minimum of 3 credits must be from the RESA course list.

8. Several of the courses in the Supply Chain Program Plan have a strong ethnic and global emphasis in their curriculum. These courses include:
   - Introduction to Geography
   - Business Law
   - Organization Leadership
   - Principles of Management
   - Industrial Enterprise Practicum
   - Training Systems in Business and Industry

9. Study Abroad Opportunities
   Students enrolled in the Supply Chain Management program will be encouraged to participate in study abroad opportunities. Organizational Leadership and Global Manufacturing courses are both offered as study abroad courses. A study abroad experience helps to prepare students for participation in the global workforce and also provides an opportunity for personal growth.

10. Student Recruitment Target
    The following table details the enrollment statistics for the College of Management by ethnicity. The data shows 9.6% have the students enrolled in the College of Management are classified as an ethnicity other than White/Caucasian. The B.S. in Supply Chain Management program's target for minority student enrollment will be 5% by the end of the 5th year of implementation.

College of Management Enrollment by Ethnicity

	Frequency	Percent
African American/Black	31	1.2
American Indian/Alaskan Native	23	.9

Hispanic/Latino	31	1.2
International	62	2.5
Other Asian	32	1.3
Southeast Asian	28	1.1
Two or More Race Ethnicities	3	.1
Unknown	33	1.3
White/Caucasian	2270	90.3
Total	2513	100.0

The Supply Chain Management program has also established a target for women enrolled in the program with a goal of achieving 15% women enrollment by the end of the 5th year of implementation. This target has been established based upon the current enrollment data in the College of Management Enrollment by Gender table below. The technical nature of the program contributes the women enrollment target since fewer women traditionally enroll in these programs.

College of Management Enrollment by Gender

	Males	Females	% of Females
Business Administration	558	329	37.09
Golf Enterprise Management	156	15	8.77
Hotel, Restaurant and Tourism Management	255	317	55.42
Retail, Merch and Management	12	304	96.20
Service Management	34	26	43.33

11. Student Recruitment Efforts

Recruitment According to UW-Stout's Equity Scorecard project, Hispanic high school graduates are expected to grow by 48% in Wisconsin and 58% in Minnesota between 2005-2016. During this same time period, white high school graduates are expected to decline 11% in Wisconsin and 16% in Minnesota. Based on these statistics the Supply Chain Management program will focus recruiting efforts on attracting students from the growing Hispanic high school student population.

Also noted in the Equity Scorecard project is the research that community colleges and two-year technical colleges are an excellent source of minority transfer students. There will be an opportunity with the existing collaboration with NWTC to focus recruitment efforts on underrepresented minorities.

12. Faculty/Staff Recruitment

The proposed program does not project the need for recruiting activities for faculty or staff, but there is a strong commitment in the College of Management

to recruit for a culturally diverse campus community. Currently in the College of Management 35% of the instructional faculty/staff are women and 8% are minorities, 29% of faculty is women and 10% are minorities.

13. University Resources/Programming
    - Multicultural Student Services Office – promotes a campus environment of diversity and inclusiveness for students of color that is conducive to learning by providing a variety of programs and services.
    - Scholarships for academically qualified minority students.
    - Grants for minority and disadvantaged students.
    - D.I.A.L. Floor - a diverse residence hall living and learning community that promotes understanding and acceptance of differences.
    - Ally Center, Memorial Student Center – a place for diverse groups/individuals to gather for meetings, study, host events, and access resources.

3.7 Collaboration

Collaboration will be an essential part of the Supply Chain Management Program. Collaboration opportunities have been explored with Auburn University and Western Michigan University and both universities are interested in exchanging coursework with UW-Stout. In addition, UW-Stout has had conversations with UW-Superior and Northeast Wisconsin Technical College (NWTC) to explore collaboration opportunities with their institutions.

3.8 Outreach

Students in the Supply Chain Management program will have the opportunity to be involved in outreach activities for supply chain management through the Northwest Wisconsin Manufacturing Outreach Center (NWMOC), an outreach element housed within the Stout Technology Transfer Institute (STTI), a highly successful outreach organization. STTI will be able to assist faculty members in providing practical assistance to Wisconsin companies through this organization. Faculty also engages with regional businesses on student projects and applied research.

3.9 Delivery Method

Courses in the Supply Chain Management program will be offered at the UW-Stout campus and online. The courses will initially be offered online and then migrated to being offered both online and on campus. The online course offerings will be targeted to students that have a two-year associate degree and are looking to obtain their bachelor's degree in Supply Chain Management as well as non-traditional students in the Supply Chain Management field.

4. NEED

4.1 Comparable Programs in Wisconsin

Due to the demand of qualified individuals in the Supply Chain Management, there has been an increasing trend for universities to broaden their existing Operations Management programs to include Supply Chain Management in the degree title. Many of the comparative programs offered in the UW System are Bachelor of Business Administration (BBA) degrees. This program would be a Bachelor of Science program in Supply Chain Management which would be unique to the UW System. Although there are programs in the UW System that include components of Supply Chain Management, this Bachelor of Science program would fill a void along the rapidly developing I-94 corridor and within the Minnesota, Wisconsin, Michigan, and Illinois region.

Comparable Programs in Wisconsin

UW-Superior	• B.S. Transportation and Logistics Management
UW-Madison	• Supply Chain Leadership Certificate
	• Supply Chain Management Specialization
	• MBA Supply Chain Management
UW-Milwaukee	• B.B.A. Supply Chain and Operations Management
UW-Oshkosh	• B.B.A. Supply Chain and Operations Management
UW-Whitewater	• B.S. Operations Management
UW-Eau Claire	• B.B.A. Management & Marketing – Operations/Materials Management

Comparable Programs Outside Wisconsin

Auburn University	• B.S. Supply Chain Management
Georgia Tech	• Global Supply Chain Management Certificate Program
Michigan State	• B.S. Supply Chain Management
	• M.S. Supply Chain Management
The Ohio State University	• Supply Chain and Logistics Management - Executive Education
Penn State	• B.S. Supply Chain and Information Systems
St. Cloud State University	• Operations Management Concentration
University of Tennessee – Knoxville	• B.B.A Logistics
	• Integrated Supply Chain Management Certificate
	• M.B.A. Operations Management Concentration
University of Minnesota	• B.S.B. Supply Chain Management
Western Michigan	• B.B.A Integrated Supply Management

Comparable Programs Polytechnic Peers

Arizona State University Polytechnic (Polytechnic Peer)	• B.S. Supply Chain Management
Illinois Institute of Technology (Polytechnic Peer)	• Bachelor of Industrial Technology and Management
Michigan Technological University (Polytechnic Peer)	• Operations and Systems Management

4.3 Regional, State and National Needs

Businesses are requiring specialized skills in Supply Chain Management (SCM). This is being driven by pressures of globalization, cost control, increased customer service levels and high quality requirements. The supply chain represents approximately 70 to 80 percent of the cost structure of a typical company. It requires both broad and deep knowledge to analyze data, make decisions and execute critical business processes across the supply chain. More importantly, the complexity, integration and interaction of each supply chain process drives the necessity of operating an efficient supply chain in order to compete.

Supply Chain Management as defined by the Council of Supply Chain Management Professionals, (CSCMP), "encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies."

In September 2008, Wisconsin Governor Jim Doyle issued a study titled, "Wisconsin Next Generation Manufacturing Survey".

Governor Doyle stated, "As Governor, I am committed building on our strong legacy of manufacturing. Earlier this year I unveiled my Next Generation Manufacturing Plan designed to propel Wisconsin manufacturers to future success by focusing on efficiency and lean manufacturing principles. The plan also targets $85 million in existing and new tax credits to leverage $1.6 billion in private capital investment." The survey results can be found at www.wmep.org

More than 500-manufacturers responded to the survey. Fifty-three percent of the respondents in West Central Wisconsin and thirty six percent of respondents state-wide ranked Supply Chain Management as "highly important to their organizations' success over the next five years". Thirty-six percent is the third highest ranking of all strategies that are considered highly important following Superior Processes/Improvement Focus (61%) and Customer Focused Innovation 55%. It should be noted that Supply Chain Management has strong influence on the first and second ranked strategies because it is a

core element of Superior Processes/Improvement Focus and Customer Focused Innovation.
The survey results also indicate, "Wisconsin firms have considerable opportunity to leverage international sales. For example, 77% of manufacturers surveyed report that sales outside the U.S. have grown by less than 25% over the last three years. Seven percent of firms report non-U.S. sales growth of 51% or higher. Nearly two-thirds of Wisconsin manufacturers (63%) reported that they have no sales or distribution facilities beyond the U.S." An effective supply chain is critical to be able to deliver products generated from international sales.

The U.S. Department of Labor - Bureau of Statistics predicts growth during 2006-2016 in careers related to Supply Chain Management including wholesale trade and distribution, management, warehousing, transportation, purchasing managers, inventory managers, buyers and import/export agents. Generally, opportunities will be best for applicants with postsecondary education for many management, business and financial operations occupations. For upper-level and senior management positions, many employers look for candidates with a bachelor's degree or higher, along with some previous managerial experience.
People that work in the Supply Chain Management profession come from a variety of disciplines. Selected disciplines tracked by the Bureau of Labor Statistics that align with aspects of Supply Chain Management are listed below:
Projected Job Growth 2006–2016 (Bureau of Labor Statistics, www.bls.gov)

- Management Analysts/Consultants: 22-percent growth
- Industrial Engineers: 20-percent growth
- Operations Research Analysts: 11-percent growth
- Purchasing Managers: 3-percent growth
- Purchasing Agents: 0-percent growth
- Cargo and Freight Agents: 16-percent growth
- Warehousing and Storage: 33-percent growth
- Industrial Production Managers: 6-percent decline

UW-Stout has an Advisory Board for the existing supply chain curricula in Engineering Technology and Business Administration. The Advisory Board is made up of primarily Vice President and Director level people from the following companies:

- 3M
- Ariens Corporation
- IBM
- Lockheed Martin
- Mercury Marine
- Oshkosh Truck

These companies have associates that would like to complete a four-year degree in Supply Chain Management and the need for the Supply Chain Management program is unanimously endorsed by the UW-Stout Advisory Board.

Statements of Support from UW-Stout supply chain advisory board members can be found in Appendix B.

4.4 Student Demand – Future Enrollment

The table below documents the future enrollment predictions. These predications are based on a eighty percent retention rate of continuing students, spring program start date and the enrollment, retention, placement and graduation data for UW-Stout as a whole and Supply Chain related concentrations and minors.

UW-Stout has a high placement rate that is attractive to potential students. Ninety-six percent of graduates in 2006-2007 reported being employed and 77.2% reported being employed in their field. Seventy-two percent of freshmen students who began in 2007 where retained in 2008. The Supply Chain program will be attractive to new freshmen, non-traditional students and transfer students. UW-Stout has the highest number of students that transfer from technical colleges in the UW System and is third in the UW System for total transfers.

The Production Operations concentration was established in 1999 with the Supply Chain Certificate and Minor established in 2004. The Supply Chain Management Concentrations for Business Administration and Engineering Technology were established in 2006 and 2009 respectively. There are 47-students currently enrolled that have declared Supply Chain Management or Production Operations as their concentration or minor and 90 students that have graduated with these concentrations or minors since their inception.

Year	Implementation Year Spring 2010	2nd Year 2010-2011	3rd Year 2011-2012	4th Year 2012-2013	5th Year 2013-2014
New Students Admitted	5	10	15	25	25
Continuing Students	0	4	10	18	30
Total Enrollment	5	14	25	43	55
Graduating Students	0	2	2	5	10

Freshmen applications to UW-Stout have grown from 3,548 in 2004-05 to 3,937 in 2008-09. This is an indicator of the viability of UW-Stout's programs. The addition of the Supply Chain Management program will be in line with the university's mission to provide *a distinctive array of programs leading to professional careers focused on the needs of society.*

4.5 Collaborative or Alternative Program Exploration

We have entered into discussions with other institutions about collaboration. Auburn University is interested in exchanging coursework with UW-Stout. In addition to collaboration with Auburn University, UW-Stout has had conversations with UW-Superior and Northeast Wisconsin Technical College (NWTC) to explore collaboration opportunities with their institutions such as hosting off-site classes and a Supply Chain Management certificate.

5. ASSESSMENT AND ADVISING

5.1 Assessment

Several assessment methods will be used in the Supply Chain Management program. The ABSCP accreditation assesses the measurement and analysis of student learning and performance on the following criteria:

- Establishing appropriate student learning outcomes
- Demonstrating skills such as analysis, comprehension, communication, research
- Providing data to faculty, staff and students
- Assessing outcomes throughout the student's career
- Comparing evaluated performance to intended learning outcomes
- Establishing measures/indicators for overall program performance

The Supply Chain Management program assessment plan is designed to meet institutional and ACBSP accreditation criteria.

Each course in the Supply Chain Management program will assess student competency levels through papers, class projects, exams and presentations. Course evaluations completed by the student will evaluate the student's satisfaction with the course.

An objectives-based assessment tool will be used to evaluate students' progress in achieving competency of the defined program objectives. This will be accomplished through a pre and post-test assessment. A pre-test will be administered in the Introduction to Supply Chain Management course and the post-test will be administered in the Seminar Supply Chain Systems Design course. The results of this assessment will be reviewed on an annual basis.

Project-based assessment is utilized in several of the Supply Chain Management courses including: Principles of Logistics; Procurement, Sourcing and Supply Chain Management; Industrial Enterprise Practicum; and Quality Management. The creation of an e-portfolio will be a program requirement. The creation of the portfolio will be used to:

- Present accomplishments (including the projects created in the courses listed above)
- Demonstrate competencies in learning objectives
- Provide assistance in career planning and development
- Facilitate advising

- Provide an opportunity to reflect on academic and professional goals
- Meet institutional, accreditation, and department review requirements

Students are required to participate in an internship related to the Supply Chain Management field. As part of this internship experience, the student receives feedback from the employer in the areas of job performance skills, personal characteristics, opportunities for improvement, and overall performance. The evaluations received will be reviewed by the program director to assess the preparation of the students participating in the internships.

In addition to assessments performed in class, students will be encouraged to obtain Certification in Production and Inventory Management (CPIM). Obtaining this certification aligns with the program objectives to prepare a student for a career in Supply Chain Management; analyze markets and financial performance; design, manage and optimize critical components of supply chain systems; and integrate engineering and manufacturing practices into global business strategies to improve performance. This certification is beneficial for individuals involved in production and inventory management, operations, supply chain management, procurement, materials management and purchasing. The Resource Planning and Materials Management Practicum focuses on the first two of five exams required for certification.

The alumni follow-up survey is a survey sent to graduates and their employers. The purpose of the survey is to help UW-Stout assess and improve its programs. The survey is conducted at one-year and five-year intervals from graduation date. The survey assesses several aspects of the graduate's experience at UW-Stout as well as program specific questions.

The campus Planning and Review Committee (PRC) conducts formal reviews of all degree programs every seven years. As part of this review, present and past students, faculty and program advisory committee members are surveyed. The program director develops a self-assessment report which is reviewed in a formal hearing conducted by the PRC with the final results presented to the Faculty Senate and Provost.

Annual assessments are conducted in each major. The annual assessments summarize the primary methods used to assess student learning and progress throughout the program. Methods used to assess student learning outcomes should correlate with program objectives and may include standardized tests, portfolios, course-embedded assessments or other direct measures of student learning and performance. The results include specific information on how well students performed on each of the assessments. The plans for improvement may include proposed modifications in course content, course sequencing, changes in teaching methods or other proposed changes designed to improve learning in the program.
In addition to the assessment methods listed above, the program success will be evaluated on enrollment, graduation, retention and placement rates.

5.2 Advising

The University of Wisconsin-Stout Advisement Center provides advisement services to students. The Advisement Center is committed to creating a supportive and positive

atmosphere where students feel comfortable seeking assistance. The Advisement Center provides support and assistance to first-year students throughout their first year in college. The First Year Advisors work with students until Spring Advisement Day, at which time the student's transition to a faculty advisor in their chosen academic program.

In addition to the services offered to First Year Students, the Advisement Center provides support to undeclared major students and transfer students as well as career exploration activities.

Students enrolled in the Supply Chain Management program will have the expertise of their program director and faculty advisor to offer assistance on program plan progression, class selection, and career opportunities. Students will also participate in advisement day once a semester. Advisement day provides students an opportunity to meet with their advisor to plan for registration, address concerns regarding their program and to attend program-specific meetings.

The Introduction to Supply Chain Management course will be an opportunity for students to learn the foundations of supply chain management and the Supply Chain Management program. The students will be able to develop their program plan during this course and have an opportunity for program advisement through the professor of this course.

5.3 Access for Individuals with Disabilities

In accordance with the Americans with Disabilities Act, the university provides services to students who need accommodations based on their disabilities. The UW-Stout Disability Services office provides academic support program and accommodations for UW-Stout students that have a documented disability. The mission statement of Disability Services is:
The University of Wisconsin-Stout, Disability Services is committed to creating an accessible university community where individuals with disabilities have an equal opportunity to fully participate in all aspects of the educational environment. Services are to promote independence and offers reasonable and appropriate accommodations.

Accommodations to serve students with disabilities include:

- **Accessible On-Campus Housing** - Students should contact the Director of Disability Services (715-232-2995) and Residence Life (715-232-1121) to request room modifications or a single room.
- **Adaptive Equipment** - A variety of equipment is available for a student needing auxiliary aids.

- **Alternative Testing -** Accommodations may include extended time, a scribe, audio taped tests, word processing, distraction-reduced environment or as dictated by need.
- **Alternative Textbooks** -Textbooks may be provided via audiotape, CD or e-text. This process takes several weeks, so early identification is a must.
- **Disability Parking Permit-** Students with a disability, permanent or temporary, may purchase a parking permit valid in accessible locations near campus buildings. Students with a disability, permanent or temporary, may purchase a parking permit valid in accessible locations near campus buildings. A student should begin by contacting Disability Services, located in 206 Bowman Hall (715-232-2995). Disability Services coordinates the authorization for disabled parking. After a student receives authorization from the Director of Disability Services, he/she may contact Parking Services located in 110 University Services Building (715-232-1792) to purchase a disabled parking permit.
- **Interpreting Service**
- **Note Taking Assistance -** Peer note takers are hired to provide classroom notes on NCR paper or via e-mail. Disability Services works in conjunction with instructors to provide assistance for students.
- **Priority Registration** - Students are eligible for early registration.

6. PERSONNEL

6.1 Current Faculty Requirements

Current faculty FTE for the program is 1.0 FTE. Abbreviated vitae for the Business, Engineering and Technology and Operations and Management faculty members that teach these courses are included in the Appendix C

6.2 Additional Faculty Requirements

An additional .25 FTE will be required for Mr. Gene Gutman as the Program Director. Mr. Gutman is a retired Accenture Partner (formerly known as Andersen Consulting) with 23-years of deep Supply Chain Management expertise. He has worked with senior level executives at over 45 global companies to solve the most complex supply chain and business problems. His teams have designed innovative supply chain strategies and implemented industry leading supply chain solutions and transformational capabilities.

Mr. Gutman serves the existing Supply Chain curriculums in the following manner:

- Concentration coordinator and faculty advisor for Supply Chain Management for B. S. Business Administration
- Concentration coordinator and faculty advisor for Supply Chain Management for B. S. Engineering Technology
- Chair of UW-Stout Supply Chain Management Industry Advisory Board
- Faculty Advisory for Council of Supply Chain Management Professionals
- Faculty Advisor to Supply Chain Management students

- Teaches three courses in the Supply Chain Management curriculum

Mr. Gutman will lead the development of two new courses required for the program. The other courses in the program are currently offered to Business Administration and Engineering Technology students. The B.S. in Supply Chain Management curriculum has been developed to leverage existing resources in the College of Management as well as in the College of Science, Technology, Engineering and Mathematics. The need for additional faculty will be required as the program grows. The Department of Business Staffing profile will change as the program is implemented, and through attrition, faculty with expertise in supply chain will be recruited to enhance the existing staff.

6.3 Academic Staff

No new adjunct faculty will be required in year one of implementation of the program.

6.4 Classified Staff

An existing classified staff member will allocate 10% of their time to the implementation of the program.

ACADEMIC SUPPORT SERVICES

7.1 Library Resources

Since Supply Chain Management is a concentration and minor at UW-Stout, the library has been continuously adding resources from major publishers in the field. As we build the program, we will continue to add to the collection to provide adequate support for the program.

7.2 Access to Student Services

Enrolled students will have access to all student services offered by the University of Wisconsin-Stout, including:

- **Advisement Center:** The Advisement Center provides academic advising, career exploration, and tutoring resources to first year students, transfer students and special students.
- **Career Services:** Career Services offers several resources for students. These services include access to websites to search for a job or internship, workshops on writing cover letters, resumes, conducting job interviews, and searching for employment. Students also have access to a three-day career conference.
- **Conferencing and ITV:** Distance technology continues to be an important piece in support of the teaching, research and service missions at UW-Stout. Voice, video, and data-based systems are available for course offerings, professional development, conferences and meetings. UW-Stout houses four distance education labs.
- **Counseling Center:** assists students in overcoming psychological, emotional, and relational barriers to success.

- **Disability Services:** provides academic support and accommodations to students with a documented disability.
- **e-Scholar Program:** Students are assigned a laptop computer that is no more than two years old. Currently as a pilot program, end of lease laptop computers are offered at no additional charge to officially graduating students who meet specified criteria. e-Scholar students have access to a wide selection of up-to-date software. Some software is loaded on the laptop before it is deployed. Software tutorials are also available to students online.
- **Financial Aid Office:** provides on support to the financial aid process.
- **Learn@UW-Stout:** Learn@UW-Stout is UW-Stout's online course delivery system. Learn@UW-Stout allows for interaction among students, assessments such as quizzes, essays or tests, secure dropbox, grading and discussions.
- **LGBTQ Coordinator:** The coordinator provides leadership and development to a broad range of LGBTQ issues. The coordinator will advocate and promote the academic and personal growth for LGBTQ students and will identify and rectify conditions that might negatively influence student welfare.
- **Multi-Cultural Student Services:** The goal of the Multi-Cultural Student Services office to provide multi-cultural students an exceptional educational experience at UW-Stout. The office provides access to programs, grants, and advising.
- **Student Health Services:** The Student Health Services unit provides diagnosis and treatment of illness and injuries, health education and information, and referral to students.
- **Student Life Services:** The Student Life Services unit provides access to a variety of housing, dining, bookstore, athletic, recreation, and entertainment events to students.

7.3 Access to Library and Learning Resources

The mission of the library is *to establish, promote, and maintain quality services to support the UW-Stout's commitment to teaching, research, scholarship, and service*. The library strives to accomplish its mission by providing extensive resources and services to students, faculty and staff.

Both on-campus and distant learning students have access to Library Services. The library catalog, indexes and databases with access to full-text articles, subject and reference guides are accessible both on and off campus.

The library also provides access to computer, printing, scanning and software. Digital cameras, camcorders, headsets, laptop computers, microphones, projectors and speakers are available for check out.

The library provides a variety of services including InterLibrary loan where journal articles or books owned by UW-Stout or from other libraries can be requested. Reference Assistants are available to offer library, internet, and research advice from reference librarians via email, phone or instant messaging. Research consultations are available with a reference librarian in-person, by telephone or through e-mail.

7.3 Technical Support

Help desk services for students at a distance are available through ASK 5000 which is available through the web or by phone 7:30 A.M. till midnight. Service quality is continuously monitored and monthly approval ratings are at or near 90%.

7. FACILITIES – EQUIPMENT

8.1 Capital Resources – Existing Facilities and Capital Equipment

The program will leverage existing laboratory and classroom facilities. These facilities consist of classrooms, computer labs, engineering graphics labs, GIS labs and materials and processing labs. Through the e-Scholar program, all students are provided with a laptop computer and software appropriate to their field of study. As a part of the laptop initiative, there are special general access labs in both the Applied Arts Building and Micheels Hall, that extend the capabilities of laptop computers by providing plasma screens and mice at each desk. As part of the current renovation of Jarvis Hall, we are creating a supply chain laboratory for the existing curriculum. We will leverage this laboratory for the proposed program.

8.2 Capital Budget Needs – Additional Facilities and Capital Equipment Required

No additional facilities or capital equipment will be required for the first three years of the program.

8.3 Clinical Facilities

Not Applicable.

8.4 Security

The B.S. in Supply Chain Management will be guided in part by an industrial advisory board, which has been integral in the development of the curriculum. Learning outcomes have been identified. Student projects in the program specific courses will be developed in such a way that they incorporate the polytechnic way of thinking, involving applied, and industry sponsored projects. Students will be required to uphold themselves to behavior expected of a supply chain professional.

This program will eventually apply to the ACBSP (Association for Collegiate Business Schools and Programs) accreditation. As part of the accreditation requirements, students and faculty will need to supply sample work, report student progress, and provide records that demonstrate student achievement and professional performance.

Students who transfer into the program will be required to demonstrate that the credits they have earned come from an accredited university.

8. FINANCE

9.1 Operating Budget and Budget Narrative

The BS in Supply Chain Management has been developed by leveraging existing resources. Existing faculty resources should adequately cover the initial delivery of the program, with the exception of a .25 program director. To provide leadership to the program, .25 FTE and a total of $19,515 will be needed. Additional funding to support the program will be necessary. This includes a budget to support marketing efforts ($5000), services and supplies ($3000), a program director stipend ($1500) and .10 and $2,144 for clerical support will be required.

Enrollment projections show gradual increases over a 5 year period. The budget includes FTE in the Current Costs section. These are existing faculty and staff that will be teaching courses for existing programs as well as students enrolled in the new program. It is projected that during the first five years of operation 1-2 sections per year of new courses will be added to departmental offerings. Existing faculty within the departments of Business and Operations and Management will also teach the new courses that are listed in the proposed curriculum; the demand for the new and existing courses will be gradual as enrollment increases over a 3-5 year period.
The numbers presented in the budget reflect current resources that will be needed to deliver the B.S. Supply Chain Management program. To achieve what is presented in the budget will occur as a result of reallocation of internal resources.

9.2 Operating Budget Reallocation

The required funding for the program will come from the College of Management operating budget.

9.3 Extramural Research Support

The support for this program from business and industry is significant. Opportunity to develop outreach activities already exists; in addition, by offering some programs via distance delivery could create a revenue stream to support research activity.

Costing Methodology

The common UW System costing methodology is being used.

Commitment to Maintain the Program

The University of Wisconsin-Stout is committed to developing new programs that meet the needs of society. The need for future Supply Chain Management professionals has been well documented throughout this proposal. The strength of the proposed program is that it utilizes extremely well existing university resources, while at the same time meeting a future demand for more supply chain management professionals. This program

is a good model of growth and development, utilizing and leveraging existing resources and capitalizing on the expertise of faculty.

Budget

	FIRST YEAR		SECOND YEAR		THIRD YEAR	
CURRENT COSTS	#FTE	Dollars	#FTE	Dollars	#FTE	Dollars
Personnel						
Faculty/Instructional Staff	1.00	99,400.00	2.00	199,000.00	3.20	318,080.00
Graduate Assistants						
Non-instructional Academic/Classified Staff	0.10	2,144.00	0.10	2,186.00	0.10	2,190.00
Non-personnel						
Supplies & Expenses		8,000.00		8,000.00		8,000.00
Capital Equipment						
Library		3,000.00		3,000.00		3,000.00
Computing						
Other (Define)						
Subtotal		112,544.00		212,186.00		331,270.00
ADDITIONAL COSTS	#FTE	Dollars	#FTE	Dollars	#FTE	Dollars
Personnel	0.25	19,515.00	0.25	19,905.30	0.25	20,303.41
Nonpersonnel						
Other						
Subtotal		19,515.25		19,905.55		20,303.66
TOTAL COSTS		132,059.25		232,091.55		351,573.66
CURRENT RESOURCES						
General Purpose Revenue (GPR)		112,544.00		212,186.00		331,270.00
Gifts and Grants						
Fees						
Other (Define)						
Subtotal		112,544.00		212,186.00		331,270.00
ADDITIONAL RESOURCES						
GPR Reallocation (Specify source)		19,515.00		19,905.30		20,303.41
Gifts and Grants						
Fees						
Other (Define)						
Subtotal		19,515.00		19,905.30		20,303.41
TOTAL RESOURCES		132,059.00		232,091.30		351,573.41

Supply Chain Management Course Descriptions

General Education Courses

ENGL-101 Freshman English – Composition 3 cr.
Fall, Spring and Summer
Principles and practices of writing; documented paper. Placement Test Required.

ENGL-11 Freshman English – Honors I 3cr.
Fall and Spring
Readings in world literature and related writing for training in composition techniques; documented paper. Placement Test Required.

ENGL-102 Freshman English – Reading and Related Writing 3 cr.
Fall, Spring and Summer
Readings focused on a theme reflected in literature. Topics and approaches developed by each instructor; opportunity for responsible, independent study; requires intensive practice in composition.
Prerequisites: take ENGL-101 or ENGL-111.

ENGL-112 Freshman English – Honors II 3 cr
Fall and Spring
Continuation of ENGL-111.
Prerequisites: take ENGL-101 or ENGL-111.

SPCOM-100 Fundamentals of Speech 2 cr.
Fall, Spring and Summer
Techniques of effective speech: diagnosis of individual needs and training in necessary skills; speaker/listener relations, speech organization, voice, bodily action, language and development of confidence and poise.

MATH-123 Finite Mathematics With Applications 4 cr.
Fall, Spring and Summer
Real number system, systems of linear equations and inequalities, sets, functions, vectors, matrices, probability, linear programming, theory of games, Markov chains. Math placement test required, or MATH-110 or MATH-120.

STAT-130 Elementary Statistics 2 cr.
Fall, Spring and Summer
Concepts and application of probability and statistics: data analysis (graphical displays, numerical summary measures); probability and probability distributions; concepts of statistical inference (estimation and hypothesis testing). Illustrated with output from statistical computing packages.

ECON-210 Principles of Economics I 3 cr.
Fall, Spring and Summer
Tools of basic economic analysis including scarcity, cost, and demand and supply; macroeconomic issues such as economic growth, inflation, and unemployment; alternative macroeconomic theories; and fiscal and monetary policies.

GEOG-251 Introduction to Geography and Geographic Information Systems 4 cr.
Fall, Spring and Summer
Introduction to the regional and cultural geography of the world, cartography, physical and human resources of major areas of the globe and related geographic information. Introduction to Geographic Information Systems (GIS) and its use in a variety of applications.

TCS-103 Information and Communication Technologies 3 cr.
Fall, Spring and Summer
Examine the impacts of information and communication technologies on individuals and the global society and how its utilization affects personal, educational and professional growth.

MFGE-106 Impacts of Engineering Design 2 cr.
Investigation and exploration into past and present practices of engineering design and the resulting impacts on people, society, and the environment.

Business and Management Courses:

BUMKG-100 Introduction to Supply Chain Management (1 cr.)
Fall and Spring
Basic supply chain systems processes, their interrelationships and role of supply chain management. Supply Chain Management Program: advisement, course sequence and job opportunities. Supply Chain Management majors only.

BUACT-206 Introduction to Financial Accounting 3 cr.
Fall, Spring and Summer
Theory of debit and credit, principles of accounting records, modern business papers, working sheets, balance sheets and income statements, and sole proprietorships. Sophomore level or higher.

BUACT-207 Introduction - Corporate and Managerial Accounting 3 cr.
Fall, Spring and Summer
Development of basic accounting theory from BUACT-206: partnership and corporate forms of organization; branch and manufacturing accounting; cost accounting, budgeting and analysis and interpretation of financial statements. Prerequisites: take BUACT-206.

BULGL-318 Business Law I 3 cr.
Fall, Spring and Summer
Introduction to the nature of law, the legal system and the judicial process; also includes contracts, sales of goods and agency. Junior level or higher.

BUMKG-330 Principles of Marketing 3 cr.
Fall, Spring and Summer
Retail, wholesale, advertising, channels of distribution, cooperative marketing, pricing, marketing research and marketing legislation from the consumer's, middleman's and manufacturer's standpoint.

BUMIS-333 Management Information Systems - Decision Support Systems 3 cr.
Fall, Spring and Summer
Improving the practice of business management through utilization of computer software based management information systems (MIS). Employs spreadsheet software as an aid to management in making, implementing and controlling decisions. Prerequisites: take BUACT-206.

BUACT-340 Business Finance 3 cr.
Fall, Spring and Summer
Concepts of raising, allocating and controlling capital for business entities; analysis of the income tax system and its relevance with business decisions; analysis of financial data in making investment decisions. Prerequisites: take BUACT-207 and STAT-130 and MATH-123.

BUMGT-304 Principles of Management 3 cr.
Fall, Spring and Summer
Basic managerial functions: planning, organizing, staffing, directing and controlling; management principles with universal applications; nature of authority and responsibility, departmentation,

line and staff relations; enterprise manager in the social setting, comparative management; and management and the future.

INMGT-400 Organizational Leadership 3 cr.
Fall, Spring and Summer
Overview of the leader's role in accomplishing organizational objectives through the management of human resources. Concepts of organizational and individual behavior serve as a foundation for the development of such leadership skills as communication, motivation, initiating change, team building, delegation, building credibility, and conflict management. Senior level or higher.

ENGL-320 Business Writing 3 cr.
Fall and Spring
Written communication in business: practice in writing memos, letters, electronic correspondence, reports and other practical communication.
Prerequisites: take ENGL-102, ENGL-112 or ENGL-113.
ENGL-415 Technical Writing 3 cr.
Fall, Spring and Summer
On-the-job writing for business and industry; reports, letters and other documents.
Prerequisites: take ENGL-102, ENGL-112 or ENGL-113.

Supply Chain Management Core Courses

Engineering, Operations and Processes Courses
CADD-112 Principles of Engineering Drawing 3 cr.
Drafting principles, concepts, and graphic language necessary to communicate technical information on industrial drawings through sketching, traditional drafting (TRAD) and computer (CAD) techniques.

MFGT-150 Introduction to Engineering Materials 3 cr.
Fall and Spring
Exposure to engineering materials, their properties, and behavior. Topics will include: material types, testing, mechanical properties, heat treatment, and material selection. Students are expected to have had high school chemistry. Math proficiency greater than or equivalent to Math-120.

INMGT-200 Production and Operations Management 3 cr.
Fall, Spring and Summer
A broad analytical "systems" viewpoint is used to develop competency in management decision-making and problem solving in an operations setting.
Prerequisites: take STAT-130, STAT-330 or STAT-320.

INMGT-305 Resource Planning and Materials Management 3 cr.
Fall and Spring
Principles and techniques for planning and managing materials and resources within organizations, and throughout a supply chain. Topics include: resource and material planning, forecasting, master planning, materials requirements planning, capacity management, purchasing, inventory management, distribution options, supply chain management and various operational management techniques.
Prerequisites: take INMGT-200, and take STAT-130 or STAT-320.

INMGT-320 Quality Tools 3 cr.
Fall, Spring and Summer
Practical and statistical quality control in design and use of quality assurance programs: quality

engineering, manufacturing quality assurance and product quality assurance.
Prerequisites: take STAT-130.

INMGT-325 Quality Management 3 cr.
Fall, Spring and Summer
Provides the managerial and technical knowledge necessary to prepare, document, manage, and evaluate quality systems from beginning design through system operation and post-delivery customer services within a product or service environment.
Prerequisites: take INMGT-120.

INMGT-365 Project Management 3 cr.
Fall, Spring, Summer
Planning, scheduling, and control of technical projects. Topics covered include activity identification, network diagrams, scheduling, PERT/CPM, cost analysis, resource management, and computer control.

INMGT-440 Lean Enterprise 3 cr.
Fall
Principles of lean techniques, justification of lean systems, how lean systems are scheduled, and cost analysis of a lean environment.
Prerequisites: INMGT-200

BUMKG-438 Principles of Logistics 3 cr.
Fall and Spring
Applies systems approach to plan movement and storage of raw materials, components and finished goods from point of origin to point of consumption. Focuses on transportation and warehousing decisions, channel structures, physical distribution, materials management, and supply chain concepts.
Prerequisites: take BUMKG-330.

BUINB-338 International Logistics 3 cr.
Spring
International logistics strategy: customer service, inventory, transportation, packaging, warehousing, storage, exporting, licensure, joint ventures, ownership documentation, terms of trading, organization, financial and management skills. Prerequisites: take BUMKG-438

BUMKG-337 Procurement, Sourcing and Supply Chain Management 3 cr.
Fall and Spring
Processes used in procuring goods and services; analyzing and selecting global sources of supply; economics of total cost of ownership; importance of quality, delivery, ethics, and legal aspects of supplier management; negotiation principle. Recommended: proficiency with spreadsheet software.
Prerequisites: take BUMKG-330.

BUMKG-XXX Negotiation and Supply Chain Contracts (3 cr.)
Spring
Planning and preparing for the negotiation and contracting process. Topics include fact based negotiation, negotiation strategies and techniques, types of contracts, and contract management.

BUMKG-XXX Supply Chain Management Internship 1-8 cr.
Fall, Spring and Summer
Off-campus work and study in student's area of concentration; approved salaried position with cooperating company for a semester or summer session. Junior level or higher.

MFGT-251 Polymer and Composite Processes (3 cr.)
Fall and Spring
Polymer materials and properties, material testing, product design and evaluation, processing methods, machine set-up and operation. Prerequisites: take MFGT-110, MFGT-150 or PKG-220.

MFGT-252 Material Removal and Forming Processes (3 cr.)
Fall and Spring
Machine tool concepts providing an operational knowledge of machining and metal forming processes. Analysis and application of primary and secondary processing methods for the manufacture of products. Measurement principles and practice applied to inspection and process control. Development of process designs appropriate for product specifications. Prerequisites: take MFGT-110 or MFGT-150.

MFGT-253 Joining and Casting Processes (3 cr.)
Fall and Spring
Process concepts providing an operational knowledge of the practice and theory of welding, thermal cutting, adhesive bonding, and metal casting processes. Analysis and application of primary and secondary processing methods for the manufacture of products. Development of process designs and practices appropriate for product specifications, inspection and process control. Prerequisites: take MFGT-110 or MFGT-

POWER-260 Introduction to Fluid Power 2 cr.
Basic fluid mechanics, pneumatics, hydraulics, control systems and common industrial circuits.

ELEC-204 Electricity/Electronics Fundamentals 3 cr.
Electricity/electronics, associated phenomena related to basic electrical and electronics systems. Examines devices, operation, application, theory from power devices to electronic devices, controls to microprocessors.
Prerequisites: take MATH-120.

Capstone Courses
INMGT-314 Industrial Enterprise Practicum 3 cr.
Fall, Spring and Summer
Organization and operation of an industrial company; election, designing, production planning, production, marketing and distribution of a product.

INMGT-405 Resource Planning and Materials Management Practicum
Fall, Spring
Provides students with specific skills in managerial techniques for planning, scheduling and controlling resources in manufacturing and service organizations. Focuses on the first two of the five required APICS exams that lead to certification as a Certified in Production and Inventory Manager (CPIM).
Prerequisites: take INMGT-305.

BUMKG-439 Seminar: Supply Chain Systems Design 3 cr.
Fall
Synthesizing experience in supply chain, cases, problems and team/individual research will focus on analyzing, designing and modeling cost effective supply chain systems that utilize innovative

technology and business practices for procuring, manufacturing, storing and moving goods from suppliers, manufacturers, distributors, retailers and end customer. Prerequisites: take BUMK-438 and INMGT-305.

Supply Chain Selectives:

BUACT-335 Accounting for Management Decisions (3 cr.)
Fall and Spring
Interpretation of financial statements, internal control, budgeting, costing of products manufactured and sold, analysis of cost-volume- profit decisions. Data presented without mechanical techniques. Prerequisites: take BUACT-207

RC-381 Occupational Safety/Loss Control 2-3 cr.
Fall, Spring and Summer
Overview of occupational accident prevention programs: techniques of measurement, cost of accidents, locating and identifying accident sources, and problems of selecting corrective action. Junior level or higher.

TRHRD-360 Training Systems in Business and Industry 3 cr.
Summer Session
Types and purpose of training as related to business and industry. Training analysis, content, delivery systems, evaluation and justification for training. Designed for non-education majors.

INMGT-350 Facilities Planning (3 cr.)
Fall and Spring
Study of facilities location, structure, and planning for efficient layout and material handling systems. Prerequisites: take INMGT-200.

INMGT-410 Six Sigma Quality Improvement Methods (3 cr.)
Overview of Six Sigma quality improvement applications. Application of scientific methods to improve quality of products, service, processes, and management systems.
Prerequisites: take INMGT-320, INMGT-325.

INMGT-475 Advanced Project Management 3 cr.
Advanced planning, control, and leadership of technical projects and programs. Topics covered include: project and program justification, project management maturity and methods, multiple project or portfolio management, project management in multinational cultures, virtual project teams, requirements definition, and outsourcing.
Prerequisites: take INMGT-365.

Statements of Support

The testimonials below are from the UW-Stout supply chain advisory board members and demonstrate the need for the program:

The B.S. in Supply Chain degree is very important in developing future leaders that will help us with our business challenge.

The challenge: to transform ourselves into a business with supply chain as a competitive advantage that drives customer satisfaction, sales growth, and operational excellence for 3M. We must be able to deliver the right product, to the right place, at the right time, for the right value, to satisfy our customers and create competitive earnings per share for our shareholders and employees. This cannot be accomplished without world class supply chain talent.

-Jerome D. Hamilton
Director, Lean Six Sigma Initiatives
Industrial & Transportation Business
3m, St. Paul, MN

Lockheed Martin Logistics & Sustainment, a component of Lockheed Martin Corporation, in response to changing market conditions, practices, and new business opportunities, is focusing corporate capabilities on three primary business offerings that build on our core competencies. These business offerings are: Weapon System Product Support, Supply Chain Management, Logistics Command & Control. For Lockheed Martin to realize this business opportunity we must not only transform (train) our existing work force, but also add a substantial number of new professionals. We look forward to continuing our long relationship with UW-Stout to grow the next generation of Supply Chain Management professionals to help us meet our business objectives.

- Steven W. Yahr, Ed.D.
Sr. Staff Logistics Engineer
Life Cycle Operations
Lockheed Martin Maritime Systems & Sensors

The topic of Supply Chain Management continues to get a lot of attention from business, industry, and academia. IBM considers supply chain management (SCM) to be a critical business function and skill. To be competitive in the global economy we needed to change the way we conducted business internal and externally, and to look at business as a collaborative end-to-end process. We have done that by creating a new integrated supply chain business unit (2001) and a new Supply Chain Management professional career path for employees.

The focus for creating a SCM career path is to ensure that we have a sufficient and talented workforce to deal the new demands and challenges of a global enterprise. New leadership and management skills are required to address global supply/demand issues, new customers, and have a path for employees to advance within the new organization.

Graduates with supply chain management education and training are in demand. As a Learning Consultant supporting the Integrated Supply Chain and a former Global Procurement Commodity Manager for IBM, I see the need for this type of skill and background every day. I support this proposal and think that it is an excellent fit for UW-Stout.

- Bill Burmesch

Learning Consultant

IBM Corporate HQ, Human Resources

Appendix D: Executive Summary

Program Authorization (Implementation)
B.S. in Supply Chain Management
University of Wisconsin-Stout

EDUCATION COMMITTEE

Resolution I.1.b.(2):

That, upon recommendation of the Chancellor of the University of Wisconsin-Stout and the President of the University of Wisconsin System, the Chancellor be authorized to implement the B.S. in Supply Chain Management.

NEW PROGRAM AUTHORIZATION
Bachelor of Science in Supply Chain Management
University of Wisconsin-Stout

EXECUTIVE SUMMARY

BACKGROUND AND HISTORY

In accordance with the procedures outlined in Academic Planning and Program Review (ACIS-1.0, Revised June 2009), the new program proposal for a Bachelor of Science in Supply Chain Management at the University of Wisconsin-Stout is presented to the Board of Regents for consideration. If approved, the program will be subject to a regent-mandated review to begin five years after its implementation. The University of Wisconsin-Stout and UW System Administration will conduct that review jointly, and the results will be reported to the Board.

Experts in higher education as well as international business analysts have expressed a strong need for the development of a 21st century workforce that adapts to the changing ways of doing business in a global economy. As businesses create customer bases and satellite production sites all over the world, they find it necessary to coordinate these processes in an efficient and sustainable manner. Supply Chain Management, as defined by the Council of Supply Chain Management Professionals (CSCMP), "encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities." In essence, supply chain management integrates supply and demand management within and across companies. Thus, specialists in supply chain management continue to be in high demand.

UW-Stout recognizes the urgent need for training students in this integrative field. The proposed Bachelor of Science in Supply Chain Management will build on the existing UW-Stout Supply Chain Management concentrations offered through the Engineering Technology and Business Administration programs, as well as the Production Operations concentration offered within the Engineering Technology major. In addition to those Bachelor of Science degrees, a 42-credit Supply Chain Management concentration, a 22 credit certificate and a 22 credit minor are currently offered via on-campus delivery. Some courses in this field are also offered to place-bound students via distance education.[1]

REQUESTED ACTION

Approval of Resolution I.1.b.(2), authorizing the implementation of the Bachelor of Science in Supply Chain Management at the University of Wisconsin-Stout.

---

[1] The related Production Operations concentration within the Engineering Technology major was established in 1999, soon to be followed by a Certificate and Minor in Supply Chain Management, established in 2004. In response to student interest and employer demand, the Supply Chain Management Concentrations within Business Administration and Engineering Technology were established in 2008 and 2006 respectively. There are 47 students who have currently declared Supply Chain Management or Production Operations as their concentration or minor. The increasing enrollment trend and popularity of this program have motivated 90 graduates to choose these concentrations or minors since their inception. Five students are planning on declaring a double major or transferring into the Supply Chain Management Bachelor of Science program as soon as it is offered.

Program Description

The Bachelor of Science Program in Supply Chain Management will prepare students for a career in supply chain management by providing specialized training in an increasingly complex field that has developed into a highly technical field of study and practice. The proposed program will address knowledge, skills, and applied research essential to supply chain management, including instruction in improving customer service, minimizing costs, the application of best practices, and the effective use of technology. Efficient management of supply chains is even more essential during economic downturns, and it is expected that students will find their skills in high demand. Most importantly, this new major will meet the growing need for highly educated specialists in supply chain management in Wisconsin and in the geographic area that UW-Stout serves.

Courses in the Supply Chain Management program will be offered at UW-Stout with future plans to offer the program completely online. When all courses are available online, the program will also be marketed to students with two-year associate degrees and appropriate work experience as a degree-completion program.

The Supply Chain Management program will be led by the Business Department within the College of Management. The program's curriculum consists of 124 credits, of which 42 credits will be General Education courses, and 82 credits will be Business and Supply Chain Management core courses.

The curriculum will make use of faculty expertise in the Business, Engineering and Technology, and Operations and Management Departments, integrating and building upon key elements of each. In the core 82 credits in Business and Supply Chain Management, students will be trained to apply major supply chain strategies such as integration, simulation, and analysis as well as technology applications. The program will equip students to bring to their workplaces knowledge of innovative supply chain processes, customer service skills, analysis of quality and delivery performance, and strategies for minimizing total costs of goods and services. All students will graduate with the skills for applying best practices and applying state-of-the-art technologies to improve business performance. Due to the global nature of Supply Chain Management, the curriculum will also include components addressing global diversity, inter-cultural communication, and world geography. In addition, students will participate in industry-sponsored projects and complete an internship or co-op experience as part of the program requirements.

Three new courses will be offered for the core Supply Chain Management program, including a one-credit "Introduction to Supply Chain Management," a three-credit "Negotiation and Supply Chain Contracts," and a three-credit "Supply Chain Internship or Co-op." A cumulative 3.0 GPA is required based on credits taken in Analytical Reasoning as part of the general education requirements, the Business and Management Core, and the Supply Chain Management Core.

Program Goals and Objectives

UW-Stout has identified the following expectations and learning outcomes for all graduates of baccalaureate degree programs. Graduates will possess:

1. The fundamental skills and knowledge defined by the university's approved goals for General Education.
2. The skills needed to perform successfully at the entry level in a career of their choice, and the ability to learn and adapt that will support their continuing career growth and development.
3. The skills and attitudes necessary to have healthy interpersonal relations in professional, civic, and personal life.

As a program that offers highly specialized and high-tech education to undergraduates, upon completion of the Supply Chain Management program the successful graduate will be able to:

1. Integrate general education competencies into supply chain management professional studies and their personal lives.
2. Analyze markets and financial performance to provide leadership to supply chain business partners.
3. Design, manage, and optimize critical components of supply chain systems, organization and operations.
4. Integrate engineering and manufacturing practices into global business strategies to improve financial and operational performance.
5. Apply ethics, business, management, engineering, operations and processes to diverse supply chain and business environments.

Relation to Institutional Mission

The Supply Chain Management program will contribute to the advancement of UW-Stout's mission and strategic plan and is consistent with the university's polytechnic designation. The University of Wisconsin-Stout has a select mission that is "characterized by a distinctive array of programs leading to professional careers focused on the needs of society." The creation and implementation of the Bachelor of Science Supply Chain Management program will add to the distinctive array of programs at UW-Stout and will also help meet the needs of the workforce.

The Supply Chain Management program has been designed with input from industry, which will provide partners in supporting students throughout their studies and after graduation. The enthusiasm of these partners for the degree articulates well with the educational goals implicit in Stout's polytechnic mission, which prompts the University to "work closely with business, industry and other educational institutions to benefit the students and grow the economy." Finally, the addition of a major in Supply Chain Management to the UW-Stout program array is in direct alignment with the university's strategic plan and the missions and strategic plans of the participating departments on campus.

Program Assessment

An objectives-based assessment tool will be used to evaluate students' progress in achieving competency of the defined program objectives. This will be accomplished through a pre- and post-test assessment developed by program faculty. The pre-test will be administered by faculty in the "Introduction to Supply Chain Management" course and the post-test will be administered by faculty in the "Supply Chain Systems Design" seminar. The results of this assessment will be reviewed on an annual basis and communicated to program faculty in order to improve course design and pedagogical techniques.

Project-based assessment is administered by faculty in several of the Supply Chain Management courses including: "Principles of Logistics," "Procurement, Sourcing and Supply Chain Management," "Industrial Enterprise Practicum," and "Quality Management." Students in the Supply Chain Management program will be required to create an e-portfolio that contains their significant project-based assessments. The creation of an e-portfolio will be a program requirement that serves to assess overall student performance and mastery of learning outcomes in a real-world context. A stratified sample of student portfolios will be assessed by a team comprised of select faculty and advisory board members using a rubric that is based on the program objectives.

Further, students will be required to participate in an internship or co-operative education experience related to the Supply Chain Management field. As part of this internship or co-op experience, the student will receive feedback from the employer in the areas of job performance skills, personal characteristics, opportunities for improvement, and overall performance. The employer evaluations will be reviewed by the program director to assess the preparation of the students for graduation.

UW-Stout's Planning and Review Committee (PRC) will conduct a formal review of the program five years after implementation, to coincide with the UW System joint review, and thereafter on a seven-year cycle. The initial PRC review will provide information that will be utilized in the joint review process with UW System. The PRC review process is extensive, including surveys of students, faculty, and program advisory committee members, a self-assessment report by the program director, and a review of the program's enrollment, retention rates, graduation rates, and placement rates. A formal hearing is conducted by the PRC with the program director, department chair, and dean. A report with recommendations is presented by the PRC to the Faculty Senate, Provost, and Chancellor. If there are issues of concern, an interim status report may be required prior to the next scheduled review.

Need

Driven by pressures of globalization, cost control, increased customer service levels and high quality requirements, many successfully competing Wisconsin businesses are seeking employees with specialized skills in Supply Chain Management. The supply chain represents approximately 70 to 80 percent of the cost structure of a typical company. It requires both broad and deep knowledge to analyze data, make decisions, and execute critical business processes across the supply chain. More importantly, the complexity, integration and interaction of each

supply chain process drives the necessity for operating an efficient supply chain in order to compete.

In September 2008, Wisconsin Governor Jim Doyle issued a study entitled, "Wisconsin Next Generation Manufacturing Survey," reiterating his commitment to "building on our strong legacy of manufacturing" by "focusing on efficiency and lean manufacturing principles." The governor's plan "targets $85 million in existing and new tax credits to leverage $1.6 billion in private capital investment"(www.wmep.org).

More than 500 manufacturers responded to a survey that sought to document employer demand for Supply Chain Management majors. Fifty-three percent of the respondents in West Central Wisconsin and thirty-six percent of respondents state-wide ranked Supply Chain Management as "highly important to their organization's success over the next five years." The response rate of thirty-six percent is the third highest ranking of all strategies that are considered highly important by manufacturers, following "Superior Processes/Improvement Focus" (61%), and "Customer Focused Innovation" (55%). It should be noted that Supply Chain Management has a strong influence on the first- and second-ranked strategies because it is a core element of "Superior Processes/Improvement Focus" and "Customer Focused Innovation."

The U.S. Department of Labor - Bureau of Statistics predicts growth during 2006-2016 in careers related to Supply Chain Management, including wholesale trade and distribution, management, warehousing, transportation, purchasing managers, inventory managers, buyers and import/export agents. Specifically, the projected Job Growth during the period of 2006–2016 (Bureau of Labor Statistics, www.bls.gov) for career titles aligned with SCM education is as follows:

- Management Analysts/Consultants: 22% growth
- Industrial Engineers: 20% growth
- Operations Research Analysts: 11% growth
- Purchasing Managers: 3% growth
- Cargo and Freight Agents: 16% growth
- Warehousing and Storage: 33% growth

UW-Stout's Program Advisory Board unanimously endorsed the plan to develop a major in Supply Chain Management. The advisory board is comprised of established businesses in Wisconsin and includes leaders from 3M, Ariens Corporation, IBM, Lockheeed Martin, Mercury Marine and Oshkosh Truck.

Projected Enrollment (5 years)

The table below lists anticipated enrollment figures for the first five years. These predications are based on a UW-Stout institution-wide 80% retention rate of continuing students, the spring program start date, general institutional data regarding enrollment, retention,

placement and graduation as well as data derived from studying the enrollment trends in Supply Chain Management related concentrations and minors. [2]

Year	Implementation Year Spring 2010	2nd Year 2010-2011	3rd Year 2011-2012	4th Year 2012-2013	5th Year 2013-2014
New Students Admitted	5	15	20	25	25
Continuing Students	0	4	13	25	36
Total Enrollment	5	19	33	50	61
Graduating Students	0	2	2	5	10

Comparable Programs in Wisconsin

Due to the demand for qualified individuals in the Supply Chain Management, there has been an increasing trend for universities to broaden their existing Operations Management programs to include Supply Chain Management in the degree title. Many of the comparable programs offered in the UW System are Bachelor of Business Administration (BBA) degrees. The UW-Stout program, however, is designed as a Bachelor of Science program in Supply Chain Management and thus presents a unique and unduplicated offering within the UW System. Although there are programs offered at other UW System institutions that include components of Supply Chain Management, this Bachelor of Science program would fill a void that currently exists in the rapidly developing I-94 corridor and across the Wisconsin, Minnesota, Michigan, and Illinois region.

Comparable Programs outside Wisconsin

In the states adjacent to Wisconsin, few similar programs exist. Michigan State University offers a B.S. and M.S. in Supply Chain Management. The University of Michigan offers a B.S.B. in Supply Chain Management, and Western Michigan offers a B.B.A. in Integrated Supply Management but none of these programs typically recruit students that are targeted by the UW-Stout program.

[2] UW-Stout has a high placement rate that is attractive to potential students. Ninety-six percent of graduates in 2006-2007 reported being employed and 77.2% reported being employed in their field. The Supply Chain program will be attractive to new freshmen, non-traditional students and transfer students. In fact, UW-Stout attracts the highest number of transfers from technical colleges in the UW System and ranks third in the UW System for total transfers.

Collaboration

Collaboration will be an essential part of the Supply Chain Management Program. Collaboration opportunities have been explored with Auburn University and Western Michigan University and both universities are interested in exchanging coursework with UW-Stout. In addition, UW-Stout has had conversations with UW-Superior and Northeast Wisconsin Technical College (NWTC) to explore collaboration opportunities and articulation agreements.

Diversity

In the increasingly diverse U.S. society, there is a growing need for people in the workplace to understand diversity and global issues. Through its curricula and focus on preparing students for the global economy, the Supply Chain Management program will help graduates engage with the fundamentals of multiculturalism and global perspectives. The program director will work collaboratively with Admissions and Multicultural Student Services to recruit and retain minority and other underserved populations.

The table that follows details the enrollment statistics for the College of Management by ethnicity. The data shows 9.6% of the students enrolled in the College of Management are classified as an ethnicity other than White/Caucasian. The Supply Chain Management program's target for minority student enrollment will be 5% by the end of the 5th year of implementation.

College of Management Enrollment by Ethnicity

	Frequency	Percent
African American/Black	31	1.2
American Indian/Alaskan Native	23	.9
Hispanic/Latino	31	1.2
International	62	2.5
Other Asian	32	1.3
Southeast Asian	28	1.1
Two or More Race Ethnicities	3	.1
Unknown	33	1.3
White/Caucasian	2270	90.3
Total	2513	100.0

The Supply Chain Management program has also established a target for women enrolled in the program with a goal of achieving 15% women enrollment by the end of the 5th year of implementation. This target has been established based upon the current enrollment data in the College of Management "Enrollment by Gender table" below.

College of Management Enrollment by Gender

	Males	Females	% of Females
Business Administration	558	329	37.09
Golf Enterprise	156	15	8.77

Management			
Hotel, Restaurant and Tourism Management	255	317	55.42
Retail, Merchandizing and Management	12	304	96.20
Service Management	34	26	43.33

Students in the Supply Chain Management program will be exposed to a diverse set of faculty, academic staff, and students. In the College of Management, 29% of faculty are women and 10% are minorities.

The Supply Chain Management Program will offer curricular infusion of diversity principles and inclusiveness practices, particularly in courses such as "Introduction to Geography," "Business Law," "Organization Leadership," "Principles of Management," "Industrial Enterprise Practicum," and "Training Systems in Business and Industry."

Students enrolled in the Supply Chain Management program will be encouraged to participate in study abroad opportunities. "Organizational Leadership" and "Global Manufacturing" are both offered as study abroad courses. A study abroad experience helps to prepare students for participation in the global workforce and also provides an opportunity for personal growth.

Evaluation from External Reviewers

The Supply Chain Management program at UW-Stout was reviewed by three professors from established Supply Chain Management programs at Western Michigan University and Auburn University.

"With this program," one evaluator remarked, "UW-Stout will be joining a relatively small group of schools that has been able to integrate a technical component with a more traditional supply management curriculum. This combination meets a significant need and has proved to be very valuable in the marketplace." Another external consultant concluded that "[T]he [SCM] curriculum presents an interesting and somewhat novel model by attempting to bring together coverage of relevant topics from across business and engineering. We know from our own work experience and feedback we receive from companies recruiting our students that people possessing a high degree of expertise across business and engineering skills are highly coveted and difficult to find."

Resource Needs

The Supply Chain Management program has been developed by leveraging existing resources and will be funded by the College of Management. Existing faculty resources adequately cover the initial delivery of the program, with the exception of a .25 FTE program director who will advise the majors and provide leadership to the program, for whom a total of $19,515 will be needed. Clerical support will be provided by .10 FTE at $2,144. Services and supplies are budgeted at $8,000 and $3,000 is included for new program resources.

Enrollment projections anticipate gradual increases over a five-year period. The current cost line in the budget includes FTE that support the currently existing Supply Chain Management sub-majors. These are existing faculty and staff who will continue teaching cross-disciplinary courses counting for graduation in existing programs. These same courses will accommodate the students who will be enrolled in the new program without compromising acceptable and pedagogically appropriate teacher-student ratios. UW-Stout leadership projects that during the first five years of operation, in addition to continuing current costs, one-to-two sections per year of new courses will be added to departmental offerings. Existing faculty within the Business Department will also teach the new courses that are listed in the proposed curriculum and no new hires are therefore anticipated. The demand for the new and existing courses will be gradual as enrollment increases over a three-to-five year period.

The numbers presented in the current cost lines of the budget reflect current resources that will be needed to deliver the B.S. Supply Chain Management program. Cost coverage for what is presented in the budget as additional cost in delivering the new major, will be met by reallocation of internal resources within the College of Management.

RECOMMENDATION

The University of Wisconsin System recommends approval of Resolution I.1.b.(2), authorizing the implementation of the Bachelor of Science in Supply Chain Management at the University of Wisconsin-Stout.

RELATED REGENT POLICIES

University of Wisconsin System Academic Planning and Program Review (November 10, 1995)
Academic Informational Series #1 (ACIS-1.0, Revised June 2009)

Budget

	FIRST YEAR		SECOND YEAR		THIRD YEAR	
CURRENT COSTS	#FTE	Dollars	#FTE	Dollars	#FTE	Dollars
Personnel						
Faculty/Instructional Staff	1.00	99,400.00	2.00	199,000.00	3.20	318,080.00
Graduate Assistants						
Non-instructional Academic/Classified Staff	0.10	2,144.00	0.10	2,186.00	0.10	2,190.00
Non-personnel						
Supplies & Expenses		8,000.00		8,000.00		8,000.00
Capital Equipment						
Library		3,000.00		3,000.00		3,000.00
Computing						
Other (Define)						
Subtotal		112,544.00		212,186.00		331,270.00
ADDITIONAL COSTS	#FTE	Dollars	#FTE	Dollars	#FTE	Dollars
Personnel	0.25	19,515.00	0.25	19,905.30	0.25	20,303.41
Nonpersonnel						
Other						
Subtotal		19,515.00		19,905.30		20,303.41
TOTAL COSTS		132,059.00		232,091.30		351,573.41
CURRENT RESOURCES						
General Purpose Revenue (GPR)		112,544.00		212,186.00		331,270.00
Gifts and Grants						
Fees						
Other (Define)						
Subtotal		112,544.00		212,186.00		331,270.00
ADDITIONAL RESOURCES						
GPR Reallocation (Specify source)		19,515.00		19,905.30		20,303.41
Gifts and Grants						
Fees						
Other (Define)						
Subtotal		19,515.00		19,905.30		20,303.41
TOTAL RESOURCES		132,059.00		232,091.30		351,573.41