

GSC - GLOBAL SUPPLY CHAIN MANAGEMENT

GSC 3600 Operations and Supply Chain Management Cr. 3

Analysis of production and supply chain systems. Topics include forecasting, production planning and scheduling, quality control, cost control, inventory control, capacity planning, purchasing, logistics, risk management, and other related subjects. Extensive coverage of SCM strategy, manufacturing, and general SCM strategy related to purchasing and logistics. Offered Every Term.

Restriction(s): Enrollment is limited to Undergraduate level students.

GSC 4500 Business Co-op Assignment Cr. 0

Opportunity to put theory into practice on the job. Students will normally be assigned to cooperating business organizations for internship periods of one semester. No credit toward degree. Offered Every Term.

Restriction(s): Enrollment limited to students in the BA in Business Administration or BS in Business Administration programs; enrollment is limited to Undergraduate level students.

Equivalent: ACC 4500, FIN 4500, MGT 4500, MKT 4500

GSC 4990 Directed Study in Global Supply Chain Management Cr. 1-3

Advanced readings and research or tutorial under supervision of faculty member. Offered Every Term.

Prerequisites: GSC 5620 with a minimum grade of C or BLG 5620 with a minimum grade of C

Restriction(s): Enrollment limited to students in the BA in Business Administration or BS in Business Administration programs; enrollment is limited to Undergraduate level students.

Repeatable for 3 Credits

GSC 4991 Study Abroad Cr. 3

Study abroad programs in various countries. Programs run 10-15 days in length. Recent country programs have been in China; Netherlands, Germany, Poland; Italy and Canada. Travel within a given country with visits to various companies and cultural attractions. Traveling costs are over and above tuition and vary by country. Various reading and assignments required. Offered Winter, Spring/Summer.

Equivalent: MGT 4991, MKT 4991

Repeatable for 6 Credits

GSC 5200 ERP Systems and Business Integration Cr. 3

Enterprise Planning (ERP) systems comprise the primary software packages for the operational, managerial, and accounting activities of an organization. Role and function of ERP systems within organizations; analysis of major business processes and their implementation in ERP software; hands-on use of an ERP package for transaction processing and decision support; understand the use of ERP for customer relationship management, supply chain management, and electronic commerce. Offered Winter.

Prerequisites: GSC 3600 with a minimum grade of C and TIS 3630 with a minimum grade of C

GSC 5300 Manufacturing and Supply Chain Analytics Cr. 3

Discussion of the strategic and tactical issues surrounding the design and operation of supply chains through effective information collection, sharing, and collaboration, an understanding of applied analytical tools and methods that can be used to make better supply chain decisions and practical application of supply chain advanced planning and optimization solutions. Offered Fall, Winter.

Prerequisite: GSC 3600 with a minimum grade of C-

GSC 5600 Logistics and Transportation Strategy Cr. 3

An overview of logistics strategy with an emphasis on transportation. Study of the management of the movement of raw materials and finished products including the development of transportation strategies and objectives, and the selection of modes and carriers. Offered for undergraduate credit only. Offered Every Term.

Prerequisites: GSC 3600 with a minimum grade of D-

Restriction(s): Enrollment limited to students in the BA in Business Administration or BS in Business Administration programs; enrollment is limited to Undergraduate level students; enrollment limited to students in the School of Business.

GSC 5620 Global Supply Chain Management Cr. 3

Concepts of managing operations and supply chains that span multiple countries. Topics covered include, Sourcing in International Settings, Global Logistics and Trade Management, Global Plant Location and Manufacturing Network Design, and Managing International Production Operations. Emerging concepts in the discipline will also be discussed. Offered for undergraduate credit only. Offered Every Term.

Restriction(s): Enrollment limited to students in the BA in Business Administration or BS in Business Administration programs; enrollment is limited to Undergraduate level students; enrollment limited to students in the School of Business.

GSC 5650 Strategic Procurement Cr. 3

Principles of the purchasing function with topics including sourcing decisions, negotiations, buyer/seller relationships in the supply chain, supplier quality issues, supplier selection, price determination, ethical issues, legal issues, and international issues. Extensive coverage of automotive industry topics and perspectives. Offered for undergraduate credit only. Offered Fall, Winter.

Restriction(s): Enrollment limited to students in the BA in Business Administration or BS in Business Administration programs; enrollment is limited to Undergraduate level students; enrollment limited to students in the School of Business.

GSC 5670 Special Topics in Supply Chain Management Cr. 3

Offered Intermittently.

Restriction(s): Enrollment is limited to Undergraduate level students; enrollment limited to students in the School of Business.

Repeatable for 6 Credits

GSC 5680 Production Planning and Control Cr. 3

Concepts for planning and management of production resources in manufacturing organizations. Topics covered include: Demand Management, Sales and Operations Planning, Master Production Scheduling, Materials Requirement Planning, and Capacity Planning in a manufacturing environment. Emerging concepts in the discipline will also be covered. Offered for undergraduate credit only. Offered Fall.

Prerequisites: GSC 3600 with a minimum grade of D-

Restriction(s): Enrollment is limited to Undergraduate level students; enrollment limited to students in the School of Business.

GSC 5690 Principles of Quality Management Cr. 3

Quality control overview with a focus on complex manufacturing industry processes for new product development and supplier quality in the auto industry. Topics include lean concepts, six sigma processes, FEMA, IATF16949 standards, APQP, PPAP, statistical quality control, control charts, and acceptance sampling procedures. Class will help prepare students for the Six Sigma Yellow Belt Certification. Offered for undergraduate credit only. Offered Fall, Winter.

Prerequisites: GSC 3600 with a minimum grade of D-

Restriction(s): Enrollment is limited to Undergraduate level students; enrollment limited to students in the School of Business.

GSC 5890 Internship in Global Supply Chain Management Cr. 3

Student works a minimum of 160 hours. Offered for undergraduate credit only. Offered Every Term.

Prerequisite: (TIS 3630 with a minimum grade of D-

Restriction(s): Enrollment limited to students in the BA in Business Administration or BS in Business Administration programs; enrollment is limited to Undergraduate level students; enrollment limited to students in the School of Business.

GSC 5930 Customs Administration and High Tech Purchasing Cr. 3

The course covers two important topics: Customs Administration and High Tech Purchasing. In Customs Administration, the following are covered: historic and current issues related to international trade, trade policy, customs programs, import and export similarities and differences, and how organizations can leverage customs programs to improve financial results while mitigating risks and creating more efficient supply chains. In High Tech Purchasing, issues related to high tech purchasing of hardware and software will be covered. Specific topics will include negotiations, segmentation of relationships from market-based to strategic partnerships, sourcing strategies for autonomous vehicles, connectivity, and artificial intelligence; "Should Cost" analysis for highly complex components, the global semiconductor crisis - what happened and how it can be prevented in the future; and negotiation strategies in an ultra-rapid changing tech market. Offered Winter.

GSC 5980 Healthcare Supply Chain Management Cr. 3

Introduction to industries and disciplines within healthcare supply chain management. Topics include medical device manufacturing, pharmaceuticals, lean principles in healthcare, quality management, logistics, hospital materials management, purchasing and disaster preparedness. Offered Fall.

GSC 5996 Process Analysis and Cost Estimating for Buyers Cr. 3

Focused on providing future buyers and SCM professionals an understanding of basic production processes and the cost and quality drivers that impact supplier performance. Helps buyers learn what to look for when visiting suppliers. Teaches students how to identify and evaluate supplier cost and quality drivers. There will be multiple supplier visits during class hours. Offered for undergraduate credit only. Offered Winter.

Prerequisites: GSC 3600 with a minimum grade of D-

Restriction(s): Enrollment is limited to Undergraduate level students; enrollment limited to students in the School of Business.

GSC 6000 Consultative Analysis and Executive Presentation Cr. 3

Students will gain consulting skills for supply chain issues including situational and data analysis, strategy, communicating insights, persuasion and executive presentation skills. Students will conduct in-depth case study analysis, and present results with live peer feedback with special focus on research, approach, analytical tools and professional delivery. Offered Fall, Winter.

Restriction(s): Enrollment is limited to Undergraduate level students; enrollment limited to students in the School of Business.

GSC 6997 Global Supply Chain Analysis and Planning Cr. 3

Capstone course in the Global Supply Chain Management Major. An emphasis on analysis, planning and strategy. Use of supply chain simulation games and/or cases to provide students with a comprehensive view of supply chain issues and management. Provides students with an experience of running a supply chain using a simulation. Topics include: forecasting, purchasing, logistics, inventory management, production planning, project management, utilization of decision making tools, executive communication skills, and teambuilding. Offered Every Term.

Prerequisites: GSC 3600 with a minimum grade of D-, GSC 5600 with a minimum grade of D-, and GSC 5650 with a minimum grade of D-

Restriction(s): Enrollment limited to students in the BA in Business Administration or BS in Business Administration programs; enrollment is limited to Undergraduate level students; enrollment limited to students in the School of Business.

GSC 7090 Global Operations and Supply Chain Management Cr. 3

Effective management of supply chains is critical to overall firm performance. Supply chain management encompasses the management of financial, material, informational and human resource flow. Globalization has increased the strategic importance of effective supply chain management, making global supply chain and operations management decisions directly correlated to customer service and firm success. This course introduces students to the concepts and techniques of modern Global Supply Chain and Operations management. Students will gain fundamental knowledge of Supply Chain strategy formulation, Capacity Management, Business process mapping, Quality management, Theory of Constraints, Logistic Management, Location Analysis, Forecasting, Demand Planning and inventory management and Project Management. No credit after former BA 7010. Offered Every Term.

Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the School of Business.

GSC 7100 Study Abroad Cr. 3

Study abroad programs in various countries. Travel within a given country with visits to various companies and cultural attractions. Traveling costs are over and above tuition and vary by country. Various reading and assignments required. Offered Winter, Spring/Summer.

Restriction(s): Enrollment is limited to Graduate level students.

Repeatable for 6 Credits

GSC 7200 ERP Systems and Business Integration Cr. 3

Enterprise Planning (ERP) systems comprise the primary software packages for the operational, managerial, and accounting activities of an organization. Role and function of ERP systems within organizations; analysis of major business processes and their implementation in ERP software; hands-on use of an ERP package for transaction processing and decision support; understand the use of ERP for customer relationship management, supply chain management, and electronic commerce. Offered Winter.

Prerequisites: BA 7010 with a minimum grade of C

Restriction(s): Enrollment is limited to Graduate level students.

GSC 7260 Theory of Constraints: Breakthrough Solutions Cr. 3

Problem solving based on Theory of Constraints logic process. Use of cause-effect logic diagrams to identify root cause of problems, discover breakthrough solutions, specify expected results of these solutions (including negative side effects which can thus be avoided), overcome obstacles to implementation, and construct a detailed plan for implementation of solutions. Applications to management of business and other operations. Offered Spring/Summer.

Restriction(s): Enrollment is limited to Graduate level students.

GSC 7300 Manufacturing and Supply Chain Analytics Cr. 3

Discussion of the strategic and tactical issues surrounding the design and operation of supply chains through effective information collection, sharing, and collaboration, an understanding of applied analytical tools and methods that can be used to make better supply chain decisions and practical application of supply chain advanced planning and optimization solutions. Offered Winter.

Prerequisites: BA 7010 with a minimum grade of C

Restriction(s): Enrollment is limited to Graduate level students.

GSC 7620 Global Logistics Management Cr. 3

Introduction to global logistics management, integrating materials management and physical distribution through the investigation of transportation, inventory, handling and storage, acquisition, order processing and facility location subsystems. Offered Every Term.

Restriction(s): Enrollment is limited to Graduate level students.

GSC 7650 Strategic Procurement Cr. 3

Creation of competitive advantage with superior procurement management. Topics include: negotiating, relationship to the supply chain, quality issues, supplier selection and management, quantity and delivery, and price determination. Strategic, ethical, legal and international issues. Offered Every Term.

Restriction(s): Enrollment is limited to Graduate level students.

GSC 7670 Special Topics in Supply Chain Management Cr. 3

Topics range from automotive supply chain management to international supply chain management fields and countries. Offered Intermittently.

Restriction(s): Enrollment is limited to Graduate level students.

Repeatable for 6 Credits

GSC 7680 Manufacturing Planning and Control Cr. 3

Covers concepts for management of production resources in manufacturing organizations. Topics covered include demand management, sales & operations planning, master production scheduling, material requirement planning, capacity planning & management and production activity control. Emerging concepts in the discipline will also be discussed. Offered Fall.

Prerequisites: BA 7010 with a minimum grade of C

Restriction(s): Enrollment is limited to Graduate level students.

GSC 7890 Internship in Global Supply Chain Cr. 1-3

Student works in an entry-level management position in global supply chain. Offered Every Term.

Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the School of Business.

Repeatable for 6 Credits

GSC 7920 Supply Chain Process Analysis and Costing Cr. 3

Develops understanding about manufacturing processes in a wide range of products. The class will also help develop skills for cost estimating and managing sourcing in manufacturing environments. Topic covered include, how to conduct supplier site visits, viewing sales pitches, learn different types of manufacturing processes for metals, plastic and electronics and how to estimate their costs. Travel in the Detroit area will be required for the class. Offered Winter.

Prerequisites: BA 7010 with a minimum grade of C

Restriction(s): Enrollment is limited to Graduate level students.

GSC 7930 Customs Administration and High Tech Purchasing Cr. 3

The course covers two important topics: Customs Administration and High Tech Purchasing. In Customs Administration, the following are covered: Historic and current issues related to International Trade, Trade Policy, Customs programs, Import and Export similarities and differences, and how organizations can leverage Customs programs to improve financial results while mitigating risks and creating more efficient supply chains. In High Tech Purchasing, issues related to high tech purchasing of hardware and software will be covered. Specific topics will include negotiations, segmentation of relationships from market-based to strategic partnerships, sourcing strategies for autonomous vehicles, connectivity, and artificial intelligence; "Should Cost" analysis for highly complex components, the global semiconductor crisis - what happened and how it can be prevented in the future; and negotiation strategies in an ultra-rapid changing tech market. Offered Winter.

Prerequisites: BA 7010 with a minimum grade of C

Restriction(s): Enrollment is limited to Graduate level students.

GSC 7950 Auto Industry Supply Chain Management Cr. 3

Provides a study of issues in managing automotive supply chains such as: supply chain strategy, managing global manufacturing networks, logistics and trade management in auto networks, make-buy decisions, total cost of ownership, global automotive component sourcing and logistics, managing quality and risk, etc. Case situations of real companies facing these issues will be analyzed. Offered Spring/Summer.

Prerequisites: BA 7010 with a minimum grade of C, GSC 7620 with a minimum grade of C, and GSC 7650 with a minimum grade of C

Restriction(s): Enrollment is limited to Graduate level students.

GSC 7960 Lean Six Sigma Cr. 3

All organizations strive to improve efficiency and reduce waste, i.e. become lean enterprises. This course provides students with the core concepts related to managing lean organizations and implementing six sigma. Topics covered include, lean principles, process capability, value stream mapping, process improvement, and six sigma implementation. Offered Spring/Summer.

Prerequisites: BA 7010 with a minimum grade of C

Restriction(s): Enrollment is limited to Graduate level students.

GSC 7980 Healthcare Supply Chain Management Cr. 3

Introduction to industries and disciplines within healthcare supply chain management. Topics include medical device manufacturing, pharmaceuticals, lean principles in healthcare, quality management, logistics, hospital materials management, purchasing and disaster preparedness. Offered Fall.

Restriction(s): Enrollment is limited to Graduate level students.

GSC 7995 Directed Study in Global Supply Chain Cr. 1-3

Advanced independent readings and research under supervision of a graduate faculty member, in areas of special interest to student and faculty member. Offered Every Term.

Prerequisites: GSC 7620 with a minimum grade of C or GSC 7650 with a minimum grade of C

Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the School of Business.

Repeatable for 3 Credits