SUPPLY CHAIN MANAGEMENT (SCM)

SCM.250 Analytical Methods for Supply Chain Management (ESD.250)
Prereq: None
G (Fall; partial term)
3-0-3 units
Covers the primary methods of analysis required for supply chain management planning. The class solves various practical problems using simulation, linear programming, integer programming, regression, and other techniques. The work is primarily team based with a final exam. Restricted to students in the SCM program.
B. Arntzen

SCM.251 Supply Chain Financial Analysis (ESD.251)
Prereq: None. Coreq: SCM.260[J] or permission of instructor
G (Fall)
4-0-5 units
Explores the linkages between supply chain management and corporate finance. Emphasizes how the supply chain creates value for both the shareholders of the company and for the stakeholders affected by the company’s operations. Sessions combine lectures and data-rich cases from the manufacturer, distributor, and retailer perspective. Topics include accounting fundamentals, financial analysis, activity-based costing, working capital management, cash flow projections, capital budgeting, and sustainability.
J. Goentzel, J. Rice

SCM.252 Supply Chain Software (ESD.252)
Prereq: None
G (IAP)
2-0-1 units
Provides an overview of the main types of supply chain software including ERP, WMS, and TMS systems. Describes their main functionality, how they work, how they are used, their architecture, data flows, and how they are organized into modules. Also describes the software selection process and how software upgrade and implementation projects should be organized and managed. Limited to SCM students.
B. Arntzen

SCM.259 Business Writing for Supply Chain Management (ESD.259)
Prereq: None
G (Fall)
1-0-2 units
Focuses on analyzing and tailoring content for specific audiences, developing argumentation and persuasion skills, and writing clear, concise and well-structured documents (business letters, memos, executive summaries, and briefings). Covers business writing techniques and strategies through lectures and exercises, individual writing assignments, and peer reviewed workshops. In preparation for the master’s thesis requirement, students create problem statements, as well as research, write and revise a literature review. Restricted to students in the SCM program.
P. Siska

SCM.260[J] Logistics Systems (ESD.260)
Same subject as 1.260[J], 15.770[J], IDS.730[J]
Prereq: Permission of instructor
G (Fall)
3-0-9 units
Provides an introduction to supply chain management from both analytical and practical perspectives. Taking a unified approach, students develop a framework for making intelligent decisions within the supply chain. Covers key logistics functions, such as demand planning, procurement, inventory theory and control, transportation planning and execution, reverse logistics, and flexible contracting. Explores concepts such as postponement, portfolio management, and dual sourcing. Emphasizes skills necessary to recognize and manage risk, analyze various tradeoffs, and model logistics systems.
Y. Sheffi, C. Caplice

SCM.261[J] Case Studies in Logistics and Supply Chain Management (ESD.261)
Same subject as 1.261[J], 15.771[J]
Prereq: Permission of instructor
G (Spring)
3-0-6 units
A combination of lectures and cases covering the strategic, management, and operating issues in contemporary logistics and integrated supply chain management. Includes: logistics strategy; supply chain restructuring and change management; and distribution, customer service, and inventory policy.
J. Byrnes
**SCM.262 Leading Global Teams (ESD.262)**  
Prereq: SCM.260[J] or permission of instructor  
G (IAP)  
3-0-3 units  
Reinforces supply chain concepts and develops management and teamwork skills. Focuses on practical, rather than theoretical tools, methodologies, and approaches that students will use throughout their supply chain career. Includes guest lectures, a case competition, and several large-scale, team-based simulation learning games. Restricted to students in the SCM program.  
*B. Arntzen, C. Caplice*

**SCM.263 Thesis Writing for Supply Chain Management (ESD.263)**  
Prereq: None  
G (Spring)  
1-0-2 units  
Writing instruction provided for thesis teams, with emphasis on thesis structure and layout. Students develop a schedule for completing thesis and prepare an executive summary of approved topic. Limited to SCM students.  
*P. Siska*

**SCM.264 Database Analysis for Supply Chain Management (New)**  
Prereq: None  
G (Fall)  
6-0-6 units  
Introduces databases, data analysis, and information technology fundamentals for supply chain management. Covers database topics such as data modeling, relational databases, data extraction and SQL. Introduces data analysis tools for visualization, regression, supervised and unsupervised classification, which includes principal components and clustering analysis. Provides instruction on information technology topics such as software development process, UML, XML, service-oriented architectures, security and telecommunications. Term project includes implementation of data modeling, data visualization and data analysis techniques.  
*C. Cassa*

**SCM.265[J] Global Supply Chain Management (ESD.265)**  
Same subject as 1.265[J], 2.965[J], 15.765[J]  
Prereq: 1.260[J], 1.261[J], 15.761, 15.778, or permission of instructor  
G (Spring)  
2-0-4 units  
Focuses on the planning, processes, and activities of supply chain management for companies involved in international commerce. Students examine the end-to-end processes and operational challenges in managing global supply chains, such as the basics of global trade, international transportation, duty, taxes, trade finance and hedging, currency issues, outsourcing, cultural differences, risks and security, and green supply chains issues. Highly interactive format features student-led discussions, staged debates, and a mock trial. Includes assignments on case studies and sourcing analysis, as well as projects and a final exam.  
*B. Arntzen*

**SCM.266 Freight Transportation (ESD.266)**  
Prereq: SCM.260[J]  
G (Spring; second half of term)  
2-0-4 units  
Provides an in-depth introduction to the fundamental concepts and techniques related to the design, procurement, and management of freight transportation. Examines freight transportation as a bridging function for a firm, considering the physical flow of raw materials and finished goods as well as connections to suppliers and customers. Also covers how freight transportation insulates a firm’s core operations from external disruptions and variability of supply and demand.  
*C. Caplice, Y. Sheffi*

**SCM.269 Supply Chain Risk Management (ESD.269)**  
Prereq: None  
G (Spring)  
Not offered regularly; consult department  
3-0-9 units  
Ways to develop effective and innovative strategies for risk mitigation are introduced. Also covered are identifying methods for the enterprise to respond to disruptions that may effect its business eco-system and the larger economy. Teaches ways to apply the SCRM framework in industrial practice.  
*Y. Sheffi, J. Rice*
SCM.272 Supply Chain Management Workshop (New)  
Prereq: None  
G (IAP)  
2-0-1 units  
Introduces topics of maritime logistics, segmentation and revenue management, and sourcing and purchasing fundamentals in a series of hands-on workshops. Enrollment limited to SCM students.  
Y. Sheffi, B. Arntzen, I. Lagoudis, M. Gurbuz

SCM.283 Humanitarian Logistics (ESD.283)  
Prereq: None  
Acad Year 2016-2017: Not offered  
Acad Year 2017-2018: G (Spring; first half of term)  
3-0-3 units  
Explores how logistics management principles apply in dynamic, resource-constrained contexts, ranging from humanitarian crisis response to international development. Class sessions combine interactive presentations, practical exercises, case discussions, and guest speakers from humanitarian organizations. Provides an introduction to supply chain concepts and the humanitarian context to accommodate students from various backgrounds.  
J. Goentzel

SCM.284 Humanitarian Logistics Project (New)  
Prereq: SCM.283  
Acad Year 2016-2017: Not offered  
Acad Year 2017-2018: G (Spring; second half of term)  
2-0-1 units  
Explores how logistics management principles apply in dynamic, resource-constrained contexts, ranging from humanitarian crisis response to international development. Combines interactive presentations, practical exercises, case discussions, and guest speakers from humanitarian organizations. Provides an introduction to supply chain concepts and the humanitarian context to accommodate students from various backgrounds. Team projects utilize data and information from the UN, NGOs, government agencies, and the private sector.  
J. Goentzel

SCM.290 Sustainable Supply Chain Management (New)  
Prereq: None  
G (IAP)  
3-0-3 units  
Introduces operational aspects of sustainable supply chains. Focuses on analyzing the implications of environmental considerations in logistics decisions. Topics include carbon footprint, sustainable logistics, closed-loop supply chains, reverse logistics, and sustainable supply chain strategy. Includes a team project that evaluates the sustainable supply chain strategy of an industry or a publicly-traded company.  
J. Velazquez

SCM.301 Independent Study: Supply Chain Management (New)  
Prereq: None  
G (Fall, IAP, Spring)  
Not offered regularly; consult department  
Units arranged  
Can be repeated for credit.  
Opportunity for research in Supply Chain Management and Logistics on an individual or group basis. Registration subject to prior arrangement and supervision by staff.  
B. Arntzen

SCM.302 Independent Study: Supply Chain Management (New)  
Prereq: None  
G (Fall, IAP, Spring)  
Not offered regularly; consult department  
Units arranged [P/D/F]  
Can be repeated for credit.  
Opportunity for research in Supply Chain Management and Logistics on an individual or group basis. Registration subject to prior arrangement and supervision by staff.  
B. Arntzen

SCM.803 Supply Chain Leadership Workshop (ESD.803)  
Prereq: None  
G (Fall; partial term)  
2-0-1 units  
Designed to enhance your ability to manage and lead in challenging times through a series of self assessment instruments, case studies, and workshops. The objectives are to increase awareness of your strengths and weaknesses as a leader, provide a battery of instruments and surveys to help one understand the way one operates in an organizational setting, and offer strategies and tips on how to leverage one’s strengths and work on areas in need of development. Restricted to students in the SCM program.  
B. Arntzen
SCM.S90 Special Subject: Supply Chain Management (New)
Prereq: None
G (Fall, IAP, Spring)
Not offered regularly; consult department
Units arranged
Can be repeated for credit.
Opportunity for study of topics in Supply Chain Management not otherwise included in the curriculum.
B. Arntzen

SCM.S91 Special Subject: Supply Chain Management (New)
Prereq: None
G (Fall, IAP, Spring)
Not offered regularly; consult department
Units arranged [P/D/F]
Can be repeated for credit.
Opportunity for study of topics in Supply Chain Management not otherwise included in the curriculum.
B. Arntzen

SCM.THG Graduate Thesis (New)
Prereq: None
G (Fall, IAP, Summer, Spring)
Units arranged
Can be repeated for credit.
Program of research leading to the writing of a master's thesis on a relevant supply chain management topic. Arranged by the student with a member of the Center for Transportation & Logistics (CTL) research staff.
B. Arntzen