

# **Introduction to Supply Chain Management**

**Syllabus for SCM 3005**

**CRN 13317**

Lutgert College of Business  
Florida Gulf Coast University

**Instructor:** Dr. Elias Kirche

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**Telephone Number:** 239-590-7325

**Class Times & Room:** Tuesday & Thursday, 9:00 am to 10:15 am, 1206 LH

**Office:** LH 3304

**Office Hours:**

Tuesday 12 Noon to 12:30 PM & 3:15 pm to 5:15 pm

Thursday 12 Noon to 12:30 PM & 2:00 pm to 4:00 pm

**Course Description:**

This introductory course is intended to introduce students to supply chain management including its history, purpose, general principles, career opportunities, and its interrelationships with other functional areas of businesses. It is also intended to introduce standard terms and concepts for communications with supply chain personnel. Understanding the role of supply chain management and its impact on the competitiveness of the firm is an important part of any manager's training.

Supply Chain Management (SCM) is an integrated approach to planning, implementing and controlling the flow of information, materials and services from raw material and component suppliers through the manufacturing of the finished product for ultimate distribution to the end customer. It includes the systematic integration of processes for demand planning, customer relationship collaboration, order fulfillment/delivery, product/service launch, manufacturing/operations planning and control, supplier relationship collaboration, life cycle support, and reverse logistics and their associated risks. These processes, which employ a combination of people, systems and technology, can be performed by the firm itself or in collaboration with external supply chain partners.

Supply chain management is strategic in orientation and recognizes that the competitive strength of a firm is not only determined by its products but also by the operations and activities that place the products into customers' hands and provide supporting services. Efficient and effective supply chain management enhances firm performance and adds value by increasing asset utilization to gain competitive market advantage. The responsiveness and efficiency of a company's supply chain arising from its design and management is integral to the firm's ability to successfully compete in the global marketplace.

**Prerequisites:** STA 2023

## **Objectives and Learning Outcomes of the Course**

Upon successful completion of this course, students should have a comprehensive understanding of how business functions can interact through the supply chain to impact overall firm performance. Specifically, students should be able to:

1. Define Supply Chain Management (SCM), describe SCM objectives and understand basic supply chain components, terminology, and techniques.
2. Understand how supply chains influence competitiveness, ethics, and sustainability.
3. Explain the role purchasing, operations and logistics play in the integrated supply chain.
4. Use critical thinking skills in SCM, in structuring and analyzing practical problems.
5. Use effective written and verbal communication.
6. Know and utilize the SCOR model including key metrics for measuring performance.

## **Course Materials Required:**

1. **The Goal: A Process of Ongoing Improvement**, Goldratt and Cox.
2. **Principles of Supply Management: A Balanced Approach**, Wisner, Tan and Leong, 5<sup>th</sup> Edition, Cengage.

### **Registration**

Connect to Mindtap through Canvas.

### **Payment**

After registering for your course, you will need to pay for access using one of the options below:

**Online:** You can pay online using a credit or debit card, or PayPal.

**Bookstore:** You may be able to purchase access to MindTap at your bookstore. Check with the bookstore to find out what they offer for your course.

### **System Check**

To check whether your computer meets the requirements for using MindTap, go to <http://ng.cengage.com/static/browsercheck/index.html>

## **Course Content**

Framework of the Course is the Supply Chain Operations Reference Model (SCOR)

The SCOR model defines supply chain and operations management as integrated processes including Plan, Source, Make, Deliver, Return and Enable. The SCOR framework is widely adopted throughout the world and is utilized to establish Key Performance Indicators for processes and provide benchmarking capabilities.

The course topics will be delivered according to the Plan, Source, Make, Deliver, Return framework (Noted in the Course Schedule). This course is focused on the breadth of the field of SCM.

<b>Module</b>	<b>PLAN TOPICS</b>	<b>Content Coverage</b>	<b>Requirements</b>
<b>1</b>	<b>Introduction to SCM</b>	What is SCM, SCOR Model? Business & Functional Strategy Competitive Advantage Value Creation Best-In-Class Examples Career Opportunities	In Canvas: Do <b><u>Attendance Assignment</u></b> by <b>January 12th</b> ; The Goal, Chapters 1-8
<b>2</b>	<b>Operations Management</b>	Quality Control Six Sigma Continuous Improvement	Chapter 8, MindTap Homework Chapter 8— due 1/19/20 The Goal, Chapters 9-16
<b>3</b>	<b>Forecasting</b>	Demand Forecasting Techniques Forecast Accuracy CPFR	Chapter 5, MindTap Homework Chapter 5—due 1/26/20 The Goal, Chapters 17-25
	<b>SOURCE TOPICS</b>		
<b>4</b>	<b>Purchasing</b>	Purchasing Function Purchasing Process Purchasing Strategies Supplier Selection Supplier Evaluation	Chapter 2, MindTap Homework Chapter 2— due 2/2/20 The Goal, Chapters 26-33
<b>5</b>	<b>Procurement and Sourcing</b>	Sourcing Strategies Make-Buy Decision Making Outsourcing Price and Cost Analysis	Chapter 3, MindTap Homework Chapter 3 — due 2/9/20 The Goal, Chapters 34-40
<b>6</b>	<b>Strategic Sourcing</b>	Strategic Alliances Total Cost of Ownership JIT Sourcing Negotiations Supplier Relationship Management Global Sourcing	Chapter 4, MindTap Homework Chapter 4— due 2/16/20
	<b>M &amp; M Project</b>	<b>M &amp; M Report and Analysis</b>	<b>2/18/20</b>

	<b>MAKE TOPICS</b>		
7	<b>Operations Management</b>	Process Mapping Process Design Capacity TOC BOM	Chapter 6, MindTap Homework Chapter 4—due 2/23/20  <b>The Goal Simulations.— due 2/25/20</b>
8	<b>Inventory Management</b>	Classifications of Inventory Purpose of Inventory and Safety Stock Inventory Valuation Inventory Models	Chapter 7, MindTap Homework Chapter 7— due 3/15/20
	<b>DELIVER &amp; RETURN Topics</b>		
9	<b>Transportation and Logistics</b>	Transportation & Logistics Strategy Warehouse Management Channel Management	Chapter 9 (except 345- 349), MindTap Homework Chapter 9— due 3/22/20
10	<b>Transportation and Logistics</b>	Location Strategies Performance Metrics Make-Buy Analysis Outsourcing	Chapter 11, MindTap Homework Chapter 11— due 3/29/20
11	<b>Transportation and Logistics</b>	Service Logistics Strategy	Chapter 10, MindTap Homework Chapter 10—due 4/5/20
12	<b>Transportation and Logistics</b>	Reverse Logistics Customer Relationship Management	Chapter 12 (except 473- 476), MindTap Homework Chapter 12—due 4/12/20
	<b>ENABLE TOPIC</b>		
13	<b>SC Process Integration</b>	Aligning the SC for Optimal Value Integrated Performance Metrics Risk Management	Chapter 13, MindTap Homework Chapter 13—due 4/19/20
14	<b>Performance Measurement</b>	Balanced Scorecard SCOR Model World Class KPIs	Chapter 14, MindTap Homework Chapter 14—due 4/26/20
	<b>CUMULATIVE FINAL</b>	See FGCU exam schedule	

## **Exams and Cumulative Final Exam**

The Exams and the Cumulative Final Exam are closed book, closed notes however, you will be provided a formula sheet. Please bring a non-cell phone calculator.

- Exams and the Cumulative Final Exam consists of some combination of conceptual questions, quantitative models, and problem solving. The material could be based on anything covered in the lecture, text, class and case discussions, assigned homework, other assigned readings, videos, or guest presentations. **A key to doing well on the exams is taking good class notes and doing the homework in advance of taking the quiz and Final Exam.**
- All electronic devices of any kind must be turned off during the exam.
- A Scantron sheet is used to record your answers for Exams your answer on the Scantron sheet is the only valid answer (answers on the test itself will not be considered so check your Scantron answers several times). **You must bring your own Scantron to exams.**
- You must use your own calculator – No sharing of calculators.
- You are responsible on the exams for all questions and problems we work and discuss in class so take good class notes.
- **NO make-up, late or early exams are given.** On the very rare occasion that there is an emergency situation the day of the exam, AND IF you are excused from the exam by your professor, a comprehensive make-up exam is given at the end of the semester covering all course materials. Business-related absences are not excused. Students should make advance arrangements to avoid time conflicts.

## **Grading and Course Performance**

**Verification of Attendance (0%):** Complete survey on Canvas by January 12, 2020.

**In-Class Assignments (5%):** Assignments completed in class, and collected during class. There are no make-ups for in-class assignments.

**Exams (35%):** Exams on **1/21/20, 2/11/20, 3/17/20** and **4/7/20**.

**Cumulative Final Exam (20%):** See university schedule for dates, time and place.

**Mind Tap Homework Assignments (10%):** The homework for each week will be due on Sunday at 11:59 pm. Homework is an individual assignment. Students need to check the deadlines for each assignment. The lowest three grades will be dropped.

**M & M SPC Analysis Report (20%): Due on 2/18/20.** This is a team assignment consisting of up to four people. Each team will conduct an SPC analysis of the M & M data revealed in class. Specific report requirements will be distributed in class. This is a research paper. Students must adhere to the LCOB Writing Guidelines.

**The Goal Team Simulation (10%): Due on 2/25/20.** Teams of 6 to 8 students will develop a simulation of one of the major principles of the book. The team may not use any of the simulations that are written about in the book. Teams must submit a write-up of their simulation the day of class, and perform the simulation in class.

Final Grade	Percentage Range
A	$\geq 92\%$
A-	90% to 91.9%
B+	88% to 89.9%
B	82% to 87.9%
B-	80% to 81.9%
C+	78% to 79.9%
C	70% to 77.9%
D	60% to 69.9%
F	Below 60%

# M & M SPC Analysis Requirements

**Names**

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**M & M SPC Analysis and Report**

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**FINAL GRADE**

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## **WRITTEN CASE FORMAT FOR ALL SUBMITTALS/GRADING FORM**

### **WRITTEN REPORT REQUIREMENTS (1-10 scale)**

- \* Utilize the Lutgert College of Business Writing Guidelines
- \* Cover page with Title and Date
- \* Concisely written
- \* Professional caliber presentation--**QUALITY COUNTS.**
- \* Neatly Typed--10 or 12 point font, Courier or Times Roman.
- \* Double Spaced.
- \* 1 inch margins.
- \* Appropriate **Headings** and **Subheadings** prior to each section
- \* Pages Numbered, center bottom
- \* Detailed table of contents--with page numbers.
- \* Complete Reference List, APA style.
- \* Citations utilizing APA style for In-Text Citations. Example: (Brown 1989, pg. 27), (Smith and Brown 1989, pg. 27), (Smith et. Al. 1989, pg. 27).
- \* A website is considered one source, for example Mars.com will only count once per section.

**NOTE**-It is **expected** that the report is error free, well written, and grammatically correct! In order to accomplish this objective, you are encouraged to utilize each other as a resource for editing, software packages which may help you, or the use of an editorial service.

### **I. Introduction (1-10 scale)**

1. Overview of the key facts in the report
2. Purpose of the report
3. What did the SPC analysis reveal
4. **Five In-Text Citations from 5 different sources minimum**

### **II. Background Information on Mars (1-10 scale)**

1. History of the Mars company
2. History of M & M's
3. Manufacturing process and production volume
4. Historical Supply Chain issues

- a. Shortages
  - b. Recalls
  - c. Ethical Issues
  - d. Environmental Issues
- 5. Ten In-Text Citations from 10 different sources minimum**

### **III. Role of Quality Control, Quality Management (7 citations) 1-10 scale**

1. What is quality control, quality management, SPC
2. How does this quality control impact sustainability
  - a. People
  - b. Planet
  - c. Profit
3. What tools are available to conduct an SPC analysis, what tools will you use to conduct this analysis
- 4. Seven citations from 7 different sources**

### **IV. Supporting Analysis (1-10 scale)**

- 1. Five In-Text Citations from 5 different sources minimum**
2. What tools are available to conduct an SPC analysis, what tools will you use to conduct this analysis
3. How the data was collected
4. Sample size
5. Conduct and **explain** analysis of weight using X-Bar and R Charts
6. Conduct and **explain** analysis of colors using the P Chart
- 7. Provide all formulas and calculations for each chart**
8. Provide Control Charts and data for weight using X-Bar, R
9. Provide Control Charts and data for the color distribution using P Charts, one for each color
11. Upper Control Limit (UCL), Lower Control Limit (LCL) and Centerline must be on all Control Charts including the exact numeric value for each.
12. Control Charts must be one in Excel and of excellent quality to read the results
- 13. This section must have a summary of the analysis and findings.**

### **IV. Conclusion (1-10 scale)**

1. What did the analysis reveal regarding the quality control of M & M's
2. Could this have an impact on Mars and the M & M product
3. What did you learn about quality management and quality control
- 4. Five In-Text Citations from 5 different sources minimum**



## **Academic Misconduct**

Any material submitted for course credit must be your own work if it is an individual-based assignment or the work of your team if it is a group-based assignment. Students are not permitted to discuss, read, etc. the work, thoughts, and ideas regarding the case or exams with other students (or another team for case work). If outside references are used, they must be properly referenced. Also, with the case work, it is recommended that you take action to protect your work, such as collecting your materials from the lab printers and disposing of rough drafts at home. Case write-ups that are similar to current or past case write-ups or similar to on-line materials may initiate serious disciplinary action, so please do your own work as an individual or, when required, as a team. Suspected cases of academic misconduct will be reported to the appropriate university departments. Typical penalties include an F in the course, disciplinary probation and/or possible dismissal from the university. *Academic misconduct is a serious threat to the integrity and value of your degree and all that we do. Employers expect you to know the body of knowledge that is documented in your academic transcripts.* The FGCU Student Code of Conduct documents (pp. 11, 18-24) the policies related to academic misconduct and honesty so please read these materials. The FGCU Student Guidebook is available online at:

<http://studentservices.fgcu.edu/judicialaffairs/new.html>

## **Academic Behavior Standards and Academic Dishonesty**

All students are expected to demonstrate honesty in their academic pursuits. The university policies regarding issues of honesty can be found in the FGCU Student Guidebook under **the Student Code of Conduct and Policies and Procedures** sections. All students are expected to study this document which outlines their responsibilities and consequences for violations of the policy. The FGCU Student

Guidebook is available online at <http://studentservices.fgcu.edu/judicialaffairs/new.html>

## **University Nondiscrimination Statement**

Florida Gulf Coast University is committed to ensuring equity and fairness for all University employees, students, visitors, vendors, contractors and other third parties. As such, the University prohibits discrimination on the bases of race, color, national origin, ethnicity, religion, age, disability, sex (including sexual harassment/assault), gender identity/expression, marital status, sexual orientation, veteran status or genetic predisposition with regard to admissions, employment, programs or other activities operated by the University. This prohibition extends to enforcement of **Title IX** of the Education Amendments of 1972.

Questions or complaints should be directed to the Office of Institutional Equity and Compliance (OIEC). The OIEC's phone number is (239)745-4366; the OIEC email address is [OIEC@fgcu.edu](mailto:OIEC@fgcu.edu).

## **Disability Accommodations Services**

Florida Gulf Coast University, in accordance with the Americans with Disabilities Act and the university's guiding principles, will provide classroom and academic accommodations to students with documented disabilities. If you need to request an accommodation in this class due to a disability, or you suspect that your academic performance is affected by a disability, please see me or contact the Office of Adaptive Services. The Office of Adaptive Services is located in the Wellness Building. The phone number is 239-590-7956 or Video Phone (VP) 239-

243-9453. In addition to classroom and campus accommodations, individuals with disabilities are encouraged to create their personal emergency evacuation plan and FGCU is committed to providing information on emergency notification procedures. You can find information on the emergency exits and Areas of Rescue Assistance for each building, as well as other emergency preparedness materials on the Environmental Health and Safety and University Police Department websites. If you will need assistance in the event of an emergency due to a disability, please contact Adaptive Services for available services and information.

**Counseling and Psychological Services (CAPS)** provides free counseling and therapy services (including psychiatry) to all FGCU students. Please walk in to the second floor Howard Hall office any week day between 8:30 and 4:30 to schedule an initial contact appointment. Visit the CAPS website at [www.fgcu.edu/caps](http://www.fgcu.edu/caps) for more information. CAPS offers a 24/7 Helpline at (239) 745-3277 (EARS).

### **Student Observance of Religious Holidays**

All students at Florida Gulf Coast University have a right to expect that the University will reasonably accommodate their religious observances, practices, and beliefs. Students, upon prior notification to their instructors, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith. Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence. Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances. Where practicable, major examinations, major assignments, and University ceremonies will not be scheduled on a major religious holy day. A student who is to be excused from class for a religious observance is not required to provide a second party certification of the reason for the absence.

### **Resources for Faculty General Education**

Information on General Education program requirements is available online at [http://www.fgcu.edu/General\\_Education/index.html](http://www.fgcu.edu/General_Education/index.html)

### **Service-Learning**

Information on integrating service-learning into the course and course syllabus is available online at

<http://www.fgcu.edu/Connect/>

### **Distance-Learning**

Information on distance learning courses is available online at <http://itech.fgcu.edu/distance/>

### **Online Tutorials**

Information on online tutorials to assist students is available online at <http://www.fgcu.edu/support/Approved>

**Canvas Learning Management System and Demonstration Site** Information on Canvas is available online at <http://canvas.fgcu.edu/> and <https://fgcu.instructure.com/courses/7692>

### **Library Resources**

Main page: <http://library.fgcu.edu/>

Tutorials & Handouts: <http://library.fgcu.edu/RSD/Instruction/tutorials.htm>

Research Guides: <http://fgcu.libguides.com/>

Faculty Support: [http://library.fgcu.edu/faculty\\_index.html](http://library.fgcu.edu/faculty_index.html)

### **Respondus Monitor – Remote, Online Exam Monitoring**

In order to protect the integrity of online assessments that are delivered to students off site in a non-proctored location, this course may employ *Respondus Monitor* technology that will allow for the web-enabled monitoring of exams and quizzes. Students must own a computer device and an associated webcam that meet the minimum requirements of the University's standard remote monitoring system. Additional information:

☞ *Respondus Monitor* overview: <http://respondus.com/products/monitor/>

☞ *Respondus Monitor* Faculty Training and Workshops: TBA

### **Respondus LockDown Browser – Classroom and/or Remote Online Exams**

In order to protect the integrity of classroom *or* remote online exams, this course may employ *Respondus LockDown Browser* technology that will allow for the student's temporary restriction to a designated online testing website, disabling the ability to print, copy, access other applications or move to any other URL for the duration of the assessment. This technology may be used on campus in University computer classrooms *or* for remote delivery of quizzes and exams. [For online classes only: students must own a computer that meets the minimum requirements of the University's standard lock down browser application.] Additional information:

☞ *Respondus LockDown Browser* overview: <http://respondus.com/products/lockdown-browser/>

☞ *Respondus LockDown Browser* Faculty Training and Workshops: TBA

### **Lecture Capture Technology/FGCU Capture – Classroom Recording**

This course may employ technology that will allow for audio and/or video recording of live classroom sessions. This lecture capture technology is utilized for the sole purpose of enhancing student learning. It may provide for supplemental student instruction via secure links to recorded session(s), the live stream of courses, presentations of off-site guest speakers and/or the delivery of course instruction utilizing "flipped classroom" methodologies. Student questions and/or comments may be included as a part of any session being recorded. See FGCU-CAPTURE for additional details and training <http://aets.fgcu.edu/fgcucapture.asp>