

**THE UNIVERSITY OF SOUTHERN CALIFORNIA**  
**Marshall School of Business**  
**DSO 506 (16201) – Sourcing and Supplier Management – Fall 2017**

<b>Time:</b>	Wednesdays, 5:00-8:00 pm	<b>Room:</b>	BRI202
<b>Instructor:</b>	Dr. Greys SOŠIĆ	<b>Office:</b>	Bridge Hall 401E
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<b>Office hours:</b>	Wednesday, 3:30-4:30 pm Thursday, 5:00-6:00 pm	<b>Skype hours:</b>	by request (for online section)

### **COURSE SCOPE AND OBJECTIVES**

In today's increasingly competitive and globalized world, firms are continuously trying to find ways to improve their performance and differentiate themselves from their rivals. Clearly, suppliers can have great impact on a firm's total cost and help in this differentiation process. Increased levels of outsourcing and offshoring make correct selection of suppliers and their quality, along with development of relationships between suppliers and producers, more crucial than ever.

This course aims to provide students with an understanding of the impact that sourcing and supply management have on the success and profitability of firms in today's business environment. We will look at some of the factors that need to be considered when making sourcing and supplier management decisions (costs, prices, ethics, globalization, risks), and discuss the influence that sourcing and supply management have on other functional activities, such as product design, inventory management, etc.

The class format includes lectures, case discussions, simulations, and movie clips.

### **COURSE MATERIALS**

**Required:** *Course Reader (CR)* – Package of cases and readings available at USC bookstore. In the syllabus, a number such as CR#5 refers to 5<sup>th</sup> article in sequence in the course reader.

Digital version of the course reader can be purchased at  
[www.universitycustompublishing.com](http://www.universitycustompublishing.com)

Handouts (HO): Handouts posted on the Blackboard.

#### **Optional:**

- ❖ *Purchasing and Supply Management* by Johnson, Leenders, Flynn (JLF), McGraw-Hill/Irwin, 2011.
- ❖ *Purchasing and Supply Chain Management* by Monczka, Handfield, Giunipero, Patterson (MHGP), South-Western, 2011.
- ❖ *The Promise and Limits of Private Power* by Locke, Cambridge University Press, 2013.

### **COURSE POLICIES**

The course will be broadcasted live, and the recordings will be posted online 90 min after the class ends. You can access both by going to the Blackboard.

This course covers both quantitative and qualitative materials, and uses cases for discussion of issues and illustration of approaches. We will use Excel as a modeling/solution finding tool when addressing several topics. Active participation in class is important throughout the course. To ensure everyone's participation, I may at times resort to cold calling. If you are watching live, you can share your comments with class; if you watch the recordings, you can email me your thought before or after class,

or you can contact me through Skype. I will also consider participation in the Discussion board on the Blackboard.

If you attend the class in person, you should arrive to classroom on time. If you have conflicting schedules that prevent you from that, please let me know at the beginning of the semester.

### GRADING

Group case report (1)	15%
Individual submissions (4 out of 7)	12%
Option pricing	5%
Group simulation project	15%
Test	45%
Class participation	8%

### GROUP CASE REPORT

**Please form teams of up to four persons within the first two weeks;** you will be working in these teams for the group assignments. Use the “Group” option on the Blackboard to join one of the teams.

The case is to be discussed within your team and you will submit (as a team) a written report. This Syllabus provides some suggested questions that you should address in your analysis. Each team is required to submit a report on one case study (Polaris in week 4). Case write-up should be at most 4 pages and single-spaced (11 or 12 point font), with appendices attached (not included in the number of pages). It should be submitted on-line through the Blackboard, along with the Excel files used in your analysis. You will also need to enter some of the main results of your analysis separately on the ForClass, following the link on the Blackboard.

When preparing your report, imagine that you, as a consultant, have to study an organization, to identify the main issues it faces, and to propose a set of recommendations. Your written report should begin with an executive summary, about half page long, summarizing the most important problems and your recommendations (something a busy executive would read and understand what the report is about).

The rest of the report should be organized as follows:

1. Brief description of the company and its environment
2. Brief description of the problems and issues to be addressed (the questions in the syllabus related to the specific case should guide you in identifying those issues).
3. Recommendations and implementation plan.
4. Analysis that discusses why the recommendations will solve the problems identified.

You may choose to organize the report differently; however, please ensure that the above aspects are covered and the report is well organized with clear section and sub-section headers. Please avoid repetition of case facts and long expositions (remember the page limit)! Consider what you believe are the most important factors (and why). General solutions to specific problems will get you little credit. Both quantitative and qualitative analysis is important. Creativity in analysis and suggestions that are grounded in case facts will be given high credit. Please state any assumptions made clearly. Remember that your models are usually based on the forecasted demand and that different parameters and costs in the models are estimated (forecasted), so it is useful to provide some what-if analysis that considers, e.g., different possible demand scenarios, changes in cost estimates, etc.

### INDIVIDUAL (SHORT) SUBMISSIONS

In addition to the cases for which you are required to submit group reports, we will be discussing other cases and articles. You should be prepared for class discussion, and this Syllabus provides some suggested questions that you should address. For the individual submissions, follow the link on the Blackboard and enter the required information before the class on the ForClass website. Your grades for individual submissions will be posted on the ForClass website. The objective of the short

submission is to ensure that you prepare the case. For that reason, no late submissions will be accepted.

As long as your answer shows that you have given sufficient thought to the analysis, you will get full credit. Note that this in general requires answers that are longer than one sentence. Each submission is worth up to 3 points, and the maximum number of points you can obtain for individual submissions is 12. If your total exceeds 12 points, it can improve your participation grade (note that in this case, each additional submission does not increase your participation by 3 points).

We will do an option pricing exercise during week 3. As a preparation for this exercise, you need to read the description on p. 8 of this syllabus, analyze the spreadsheet with historical data on spot prices and demand, and use them to determine your answers to questions on p.8. These answers should be entered following the link provided on the Blackboard, along with an explanation of your choices. You can obtain up to 5 points for a thoughtful analysis and reasonable answers.

### **GROUP SIMULATION PROJECT**

During week 4, we will discuss global sourcing and tailored base-surge policy. This will prepare you for a global supply chain simulation project, Mexico-China Sourcing Game, that you will take part in during week 5. A spreadsheet with game description and historical order data will be posted on the Blackboard. For the simulation exercise, you should bring your laptops to class and have Safari web browser installed. With your group, before coming to class (in week 5), you should analyze the spreadsheet and decide on your global dual sourcing strategy. This includes:

1. How will you prepare yourself to start selling? (You have four periods to prime the pipeline before sales start.)
2. Will you source from both plants? Why, and if so, how much and when?
3. What is your strategic allocation? Specifically, when the orders  $D(t)$  for period  $t$  are revealed, how will you react and prepare for next period: what order will you place to Mexico and what order to China? The strategic allocation is key in setting up the sourcing relationship and includes the total number of units you expect to order over the product life cycle and how the aggregate order would be allocated to each source (i.e., the % allocated to each source captures supplier shares).

You should prepare report "Simulation analysis part 1" that describes your analysis of items 1-3 above and submit it through the Blackboard before the exercise (before class in week 5). There is no restriction on report length.

After the simulation,

we will discuss your performance and decisions. You should prepare report "Simulation analysis part 2" that describes your decisions, results, and what you learned from the exercise (that is, what, if anything, should have been done differently by your team). Report should be submitted through the Blackboard by week 6; there is no restriction on report length.

Note that the project grade depends on multiple factors: pre-game analysis, post-game analysis, and your actual performance in simulation exercise.

### **GROUP ASSIGNMENT EVALUATION**

Team assignments provide a valuable learning experience – how to work effectively and efficiently in groups, learning from others, and honing your ability to communicate to others. Although your team's grade depends on each member's efforts, some students can be tempted to let others carry their load. In order to provide an incentive for all students to make maximum contributions to the study group, you will be asked to grade each team member's contributions. Your group grades will be adjusted to obtain an individual grade based on feedback about performance provided by other members of the group (see the group assessment forms posted on the Blackboard). If you do not submit your group assessment

form, it is assumed that you have assigned a rating of 100% to all your group members. The forms can be submitted in person or via e-mail, but no later than the exam date.

### TEST

According to the USC Final Exam Schedule, the final exam is scheduled for **December 6, at 4:30 pm**. The questions may have several formats: multiple choice/single answer, multiple choice/multiple answers, and problems.

For the on campus students, the exam will be closed book; however, you can prepare a “cheat-sheet”—one letter-sized sheet of paper hand-written on both sides (for a total of 2 hand-written pages). I will remove all printed or photocopied material!

Online students will take the exam on the Blackboard; you will have a 24 hour window in which to take the exam, but once you start, you have to complete the exam in one two-hour sitting.

If there are extenuating circumstances that prevent you from taking the test, you must discuss the reason with me before the time of the test. You will not be given a make-up test unless you obtain a permission from me in advance. In addition, you must be able to document the extenuating circumstance. If you miss the test due to a medical emergency that can be documented and verified, then a make-up test will be given. Otherwise, a grade of zero will be given for the missed test. Note that a make-up test cannot be taken before the actual test date!

### CLASS PARTICIPATION

Class participation requires that you do the assigned readings, analyze the cases based on the questions given and participate actively in class. I prefer substantive comments based on good analysis rather than brief, general comments that add little to the discussion and learning. Be prepared to defend your suggestions or solutions!

If you are reluctant to talk in class or if you are not physically attending, but would like to show your preparation, please provide me with your analysis/comments through email. This may include material related to the topics covered in class from your work experience, from additional articles/videos that you have found, readings on the Blackboard, etc. Online students can also contact me through Skype, by arranging a time window that works for them and me.

I also encourage you to participate in the Discussion board on the Blackboard; it will be considered as a part of your participation.

As a part of the participation I will also track your attendance; for on-campus students it will be through Arkaive app. Please download the App to your smartphone and enable location, enter enrolment code 7VLR and check into class each week.

### GETTING HELP

If you have questions about any aspect of the course, you can always talk to me. If it is a quick question, you can contact me before or after the class, or during the break. If you need more time or privacy, on campus students can come to my office hours. If you cannot make my office hours, you can contact me and we can arrange for an alternative time. Online students can talk to me through Skype. The best way to reach me is by e-mail.

### GRADING

Graded work will be posted on the Blackboard and ForClass. Disputes over graded material should be brought to my attention as soon as possible.

### NOTICE ON ACADEMIC INTEGRITY

The use of unauthorized material, communication with fellow students during an examination, attempting to benefit from the work of another student, and similar behavior that defeats the intent of

an examination or other class work is unacceptable to the University. It is often difficult to distinguish between a culpable act and inadvertent behavior resulting from the nervous tensions accompanying examinations. Where a clear violation has occurred, however, the instructor may disqualify the student's work as unacceptable and assign a failing mark on the paper.

Academic dishonesty includes: (*Faculty Handbook*, 1994: 21-22):

- Examination behavior - any use of external assistance during an examination shall be considered academically dishonest unless expressly permitted by the teacher.
- Plagiarism - the appropriation and subsequent passing off of another's ideas or words as one's own. If the words or ideas of another are used, acknowledgment of the original source must be made through recognized referencing practices.
- Other types of academic dishonesty - submitting a paper written by or obtained from another, using a paper in more than one class without the teacher's express permission, obtaining a copy of an examination in advance without the knowledge and consent of the teacher, changing academic records outside of normal procedures and/or petitions, using another person to complete homework assignments without the knowledge or consent of the teacher.

### **FOR STUDENTS WITH DISABILITIES**

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m. - 5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

### **STATEMENT ON TECHNOLOGY USE**

Please note that communication devices such as cell phones, smart phones, tablets, etc. capable of sending and/or receiving electronic communication and all entertainment devices are to be turned off and kept off throughout the class session. Receiving or sending communication or entertainment during class disrupts the learning environment and is rude to those around you.

**Course plan at a glance (tentative)**

Week	Topic	Readings	Cases	Submission
1	Introduction-Purchasing and supplier management	How the U.S. Lost Out on iPhone Work (HO) In China, Human Costs Are Built Into an iPad (HO) Parts Supplier Delphi is Scrutinized in GM Recall (HO) A Cheaper Airbag, and Takata's Road to a Deadly Crisis (HO) Takata's Future in Doubt as Airbag Recall in U.S. Doubles in Size (HO) Supplier's Role Shows Breadth of VW's Deceit (HO)		Short #1 – Apple (q.1) Short #2 – Automakers (q.1)
2	Supplier selection and evaluation	How to Negotiate with Powerful Suppliers (CR #1)	Casturn System (A), (B) (CR#2, #3)	Short #3 – Powerful suppliers (q.) Short #4 – Casturn (q.6)
3	Prices and contracts	Option pricing model (p.6, HO)		Exercise – Option pricing model (q.1, see p.6)
4	Global sourcing	Strategic sourcing (CR #4)	Polaris (CR#4)	Group #1 – Polaris
5	Global dual sourcing simulation game	Global dual sourcing simulation game (HO)		Group project - Simulation analysis part 1
6	No class - Thanksgiving			Group project - Simulation analysis part 2
7	Procurement risks Environmental and social issues	Bangladesh Fire: How Rules Went Astray (HO) Bangladesh Fire and Wal-Mart's Supplier Network (HO) Public Outrage Over Factory Conditions (HO) U.S. Retailers Offer Plan for Safety at Factories (HO) Retailers Like H&M and Walmart Fall Short of Pledges to Overseas Workers (HO)	Honda Canada (A), (B) (CR#5, #6) IKEA (CR#7)	Short #5– Honda (q.2) Short #6 – IKEA (q.3) Short #7–Bangladesh (q.3)

## Detailed course plan

### **Week 1 Introduction-Purchasing and supplier management; Cost analysis**

#### **Readings:**

- *How the US lost out on iPhone work* (NYT, 1/21/2012)
- *In China, Human Costs Are Built Into an iPad* (NYT, 1/25/2012)

#### Discussion Questions:

1. Apple formerly assembled its computers at factories at Fremont, California, and in Colorado. From managerial perspective, what rationale do you think Apple had moving it to China? Do you support their decision? Could Apple pick an offshore assembly location in another area? What are the important factors in their location selection?
  2. What is your evaluation of Foxconn social condition policies (wages and benefits, occupational health and safety, labor and human rights)? Do they have any impact on Apple's image? Is Apple responsible for the alleged human rights violations that occurred? Should firms such as Apple maximize their profits, or should they sacrifice some profits to do good?
  3. What coordination costs does Apple incur? Would onshoring, insourcing, or a combination of the two represent a suitable response to Apple's problems?
- *Parts Supplier Delphi is Scrutinized in GM Recall* (NYT, 6/24/2014)
  - *A Cheaper Airbag, and Takata's Road to a Deadly Crisis* (NYT, 8/27/2016)
  - *Supplier's Role Shows Breadth of VW's Deceit* (NYT, 2/1/2017)

#### Discussion Questions:

1. Who should be held responsible for the car equipment malfunction? Justify your answer by using data from the above articles.
2. What is the impact of the recent wave or recalls on GM supply chain? What role does sourcing and supplier management play in this situation?
3. Who is the impact of the recent wave of recalls on Takata? On its customers? What role does sourcing and supplier management play in this situation?
4. Should Bosch be held responsible in Volkswagen cheating on clean air rules?

### **Week 2 Supplier selection and evaluation**

#### **Readings:**

- *How to Negotiate with Powerful Suppliers* (HBR # R1507G)

#### Discussion Questions:

1. The balance of power in an industry can dramatically shift from buyers to suppliers. Companies that have gotten into a weak position with suppliers need to strategically redefine the relationship, tackling the problem as an enterprisewide challenge. What are the approaches for dealing with this challenge suggested in the article?
- *Supplier Selection at Casturn Systems (A), (B)*(U Michigan #W92C48, #W92C49)
- #### Discussion Questions:
1. What are factors and trends influencing profitability at Casturn's transmission division?
  2. What are the benefits and disadvantages of the re-sourcing process in case A, Figure 1?
  3. Can reverse auctions be used for sourcing highly engineered parts?
  4. What went wrong with Casturn's first two auction attempts?
  5. What improvements would you recommend implementing if the GSM division is to achieve success in its re-sourcing initiative?

6. What parts (if any) should be taken to electronic reverse auction in case B? Justify your recommendation by submitting Excel file with your calculations.
7. What is the optimal setup for electronic reverse auctions? Specifically, answer the following questions that Haro and Blake wanted to determine:
  - a) What should be the duration of the auction event?
  - b) Should the bid be on piece or total cost?
  - c) Should the auction have a reserve price? Should that price be visible to suppliers?
  - d) Should it be a dynamic bidding event, or a single-shot (best-and-final) tender?

### **Week 3 Prices and contracts**

❖ **Option pricing model:** Cameo is a manufacturer of fashion handbags, and they introduce new model every quarter. The demand pattern they are observing for one type of their product is shown in the worksheet "Past Demand Data". As seen from the data, demand showed a lot of uncertainty, and they are considering different options for material sourcing that would enable them to meet demand with minimal cost.

On one hand, Cameo is considering a traditional purchase contract which specifies the quantity, unit price and delivery schedule. As these parameters are determined before the actual demand is known, it is likely that there will be a mismatch between material available and material needed. In the case of material shortage, Cameo used spot market to purchase additional quantity in the past. The prices in the spot market vary from week to week--historical data for the last year is given in worksheet "Past Spot Price Data"--and can result in much higher material cost. Cameo is now considering a new alternative--an option contract, which includes paying a reservation fee to the supplier in order to obtain the right to buy up to a reserved quantity for a predetermined unit exercise price.

For a traditional purchase contract Cameo can get the price of \$20 per unit, but it requires quantity commitment. If the actual demand is lower than expected, Cameo could salvage extra bags at \$5 per unit. If Cameo pursues the option contract, they have to pay a reservation price of \$0.75 and the exercise price of \$19.75. Additional costs of making the bag add up to \$60 per unit. Cameo is selling each bag for \$100.

- 1) What can you say about demand distribution and spot price distribution facing Cameo? How can they be described/approximated?
- 2) Suppose that Cameo is committing to a purchase contract of 1,000,000 units for next quarter. What is their likely profit if they do not use option contract?
- 3) Would the option contract described above improve their profitability? Explain your answer.
- 4) If they use the option contract described above, would they benefit from changing the purchase contract quantity?

**Please download the excel file for Option pricing model from the Blackboard.**

### **Week 4 Global sourcing**

#### **Readings:**

- *Polaris Industries Inc.* (Kellogg case #KEL725)

#### Discussion Questions:

1. Why does Polaris outsource the manufacture of most components but in-source final assembly?
2. Which manufacturing location provides Polaris with the greatest cost savings (in your calculations, assume that labor cost is not included in production cost)?



3. Would your recommendation change if foreign exchange rates increased or decreased by 15%?
4. Assuming all else is constant, would your recommendation change if labor rates in Mexico increased by 20% annually instead of 7.1%?
5. What other factors should Suresh Krishna and his team consider when making the manufacturing location recommendation?

➤ **Group report on Polaris due at the beginning of the class**

**Week 5 Global dual sourcing simulation game**

(Bring your laptops to class)

➤ **Simulation analysis part 1 due at the beginning of the class**

**Week 6 No class – Thanksgiving**

➤ **Simulation analysis part 2 due 11/24**

**Week 7 Procurement risks; Environmental and social issues**

**Readings:**

- *Honda Canada (A): Tsunami and Communications; Honda Canada (B): Tsunami and Sourcing Disruptions* (Ivey Publishing case #W16152, #W16153)  
Discussion Questions:
  1. What is the impact of single sourcing vs. diversified supply networks?
  2. Why was Honda caught unaware of the vulnerabilities in its supply chain?
  3. What conceptual approaches can Honda Canada take to build a more robust supply chain?
  4. How can Honda Canada turn the crisis into an opportunity?
- *IKEA's Global Sourcing Challenge: Indian Rugs and Child Labor (A)* (HBS case #9-906-414)  
Discussion Questions:
  1. How should Marianne Barner respond to the invitation for IKEA to have a representative appear on the upcoming broadcast of the German video program?
  2. What actions should she take regarding the IKEA supply contract with Rangan Exports?
  3. *What long-term strategy would you suggest she take regarding IKEA's continued operation in India? Should the company stay or should it exit? Describe the impact of such a decision and how you would manage it.*
  4. If IKEA continues to source carpets in India, would you suggest that they:
    - a. Continue IKEA's own monitoring and control processes or sign-up to Rugmark?
    - b. Continue to focus only on eliminating the use of child labor in IKEA's SC or
    - c. Engage in broader action to address the root causes of child labor?
- *Bangladesh Fire: How Rules Went Astray* (WSJ, 12/6/2012)
- *Bangladesh Fire: What Wal-Mart's Supplier Network Missed* (WSJ, 12/10/2012)
- *Public Outrage Over Factory Conditions Spurs Labor Deal* (NYT, 5/19/2013)
- *U.S. Retailers Offer Plan for Safety at Factories* (NYT, 7/10/2013)  
Discussion Questions:
  1. Who is responsible when accidents like the one in Bangladesh occur? How should western firms approach the safety issue for factories to which they outsource their manufacturing?
  2. Was Wal-Mart approach to factory safety flawed? Would you have done anything differently?
  3. *How does European approach to factory safety (the accord) differ from the American one (the alliance)? What are the pros and cons of each of them?*