

#### **COURSE INFORMATION**

Course title: Supply Chain Strategy and Analytics

Course code: BASC 525 Credits: 1.5 Session, term, period: 2019W1 Class location: HA 132

Section(s): 302 Class times: 8:30am-4:00pm on Sat, Oct 26,

Sun, Oct 27, Sat, Nov 2, 2019

Course duration: Oct 26 to Nov 17, 2019 Pre-requisites: n/a Division: Operations and Logistics Co-requisites: n/a

Program: PMBA

#### **INSTRUCTOR INFORMATION**

Instructor: Harish Krishnan

Phone: 604-822-8394 Office location: HA 467

Email: <a href="mailto:harish.krishnan@sauder.ubc.ca">harish.krishnan@sauder.ubc.ca</a> Office hours: By appointment

## **COURSE DESCRIPTION**

Supply chain management involves the management of multiple value-creating processes that are typically fragmented and dispersed across organizational and national boundaries. This fragmentation creates opportunities (e.g. lower costs) but also challenges (e.g. longer lead times). Firms therefore need to find a way to exploit the benefits provided by fragmented supply chains, while making sure that the challenges are managed effectively. This course will expose students to several issues involved in managing supply chains, including design, coordination, planning and execution. The goal of the course is to develop a framework which can be used to think strategically about a firm's supply chain and also introduce analytical approaches that would help manage supply chains.

#### **COURSE FORMAT**

The course will include lectures, case discussions, in-class case activities and simulations. Please see detailed course schedule below.

## **LEARNING OBJECTIVES**

By the end of this course, students will be able to:

- 1. Analyze total system costs in supply chains
- 2. Know when and how to use various forecasting techniques
- 3. Compute trade-offs between cost and responsiveness in supply chains
- 4. Understand the role of logistics in supply chains
- 5. Construct and solve supply chain models in Excel

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#### **ASSESSMENTS**

# **Summary**

In-class assessments:

Class participation: 20%
 In-class group case memos (Alko and HP): 20%

• Out-of-class assessments:

Individual case <u>analysis</u> (Barilla): 20%
 Individual case <u>memo</u> (H&M): 10%
 Simulation game (group): 10%
 Group case analysis (Sport Obermeyer): 20%

#### Details of Assessments

## **Class Participation:**

Please be ready and willing to actively engage in all aspects of the classroom learning experience.
 We all have something to contribute to the collective learning experience each day, and we all want to benefit from it.

#### Case memo details:

- Case memos are short summaries of the key issues in the case.
- The course has a combination of group case memos and individual case memos. The group case memos are to be completed in-class (groups of 3, or at most 4). Students are free to form their own groups.
- Details and guidelines for the case memos will be posted on the course website.

## Individual case analysis:

- Case analysis guidelines will be posted on the course website.
- Questions to guide the analysis will also be posted on the course website.

# Group case analysis:

- For the group case analysis, students must work in groups of 3 (or at most 4).
- Students are free to form their own groups.
- Case analysis guidelines will be posted on the course website.
- Questions to guide the analysis will also be posted on the course website.

# Supply chain game:

- Groups of students (same as the case analysis group) will play an online supply chain game: Harvard's Global Supply Chain Simulation.
- Marks will be assessed on the performance in the game, and a short report.
- Details for the report will be provided on the course website.

## **LEARNING MATERIALS**

# Required:

- Course pack containing Harvard cases and two Harvard simulations (will be available electronically; details will be shared later)
  - Estimated cost of course pack and simulations: \$50

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- Class notes (will be posted on course website)
- Some required readings and cases will be posted on the course library website

Additional materials recommended but not required:

Links to some recommended readings will be posted on the course library website

#### COURSE-SPECIFIC POLICIES AND RESOURCES

Missed or late assignments, and regrading of assessments

Late submissions will not be accepted and will receive a grade of zero.

#### Academic Concessions

If extenuating circumstances arise, please contact the RHL Graduate School program office as early as reasonably possible, and submit an <a href="Academic Concession Request & Declaration Form">Academic Concession Request & Declaration Form</a>
<a href="https://webforms.sauder.ubc.ca/academic-concession-rhlee">https://webforms.sauder.ubc.ca/academic-concession-rhlee</a>. If an academic concession is granted during the course, the student will be provided options by RHL, or by the instructor in consultation with RHL, per UBC's policy on Academic Concession.

### Other Course Policies and Resources

#### Assignment submission details:

- All in-class cases memos must be submitted at the time and in the manner specified in class.
- All out-of-class submissions must be uploaded to the course website (deadline specified on course website).
- For group case analyses, only one member of each group needs to submit the analysis. Please make sure that the names of all group members are noted clearly in the submission.

#### **Grading:**

Case memos will be marked on a "CheckPlus/Check/CheckMinus" scale. These will then be converted into a number. Usually, a "Check" means an "average" memo and will receive approximately 80%. CheckPlus will receive more than this and CheckMinus will receive less. The exact percentage mark for CheckPlus and CheckMinus will depend on the quality of the memos. Also, all CheckPlus memos and all CheckMinus memos need not receive the same percentage mark. Some differences in quality may be accommodated by assigning different percentage marks. For example, while most CheckMinus memos may receive 75%, a really bad memo may receive a much lower mark. Also, while most CheckPlus memos may receive 85%, a really outstanding memo may receive a higher mark. In general, a "CheckPlus" means that the memo is thorough and thoughtful. This means that the key issues in the case were clearly identified, appropriate analysis was discussed, and recommendations were clearly justified. "Check" means that it the memo is satisfactory but with room for improvement. For example, the issues were clearly identified but the analysis and recommendations were not as compelling as they could be. Finally, "CheckMinus" means that the memo was unsatisfactory with significant room for improvement. For example, the key issues were not identified or discussed, and/or the analysis and recommendations were unclear or unsupported by facts. Again, if there are any questions, please e-mail me and I am happy to meet individually to address your concerns.

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• <u>Case analyses</u> will be marked out of a certain number of points, e.g. 20 points (please see assessment summary). Evaluation of the case reports will be based on the clarity of the report, the depth of the analysis, the logic of arguments, the effective use of fact and opinion from the case to defend arguments, and the appropriateness of the issues identified. Considerable attention will be paid to the quantitative analyses. The reasonableness of assumptions chosen to guide the analysis will enter in as well. Again, if there are any questions, please e-mail me and I am happy to meet with your group to address your concerns.

### A note about case solutions:

- If you search online, you may be able to find "solutions" to case studies. These are typically assignments that students at other universities have submitted and uploaded to some repository. Given the availability of these online "solutions", it may be useful for me to remind you about the reason we do case studies.
- Each of you has a unique perspective and understanding of the topics that we study in this course. Your case submissions give you an opportunity to articulate your perspective and, by doing so, you contribute to your own learning and to the learning of the class. Looking for the "correct" answer online does not benefit you. In fact, it hurts you because it constrains your ability to learn. Furthermore, it exposes you to the risk of academic misconduct.
- Maintaining the highest standard of academic integrity enhances your educational experience, both
  individually and as a cohort. I fully expect that you are committed to getting the best possible
  experience from this program.

## A note about feedback:

- This is a case-heavy course. Grading cases can be time consuming. There is usually not one "correct" approach to a case, and students often provide diverse responses each of which may consist of a well-thought argument. These nuances can be hard for a marker to pick up. As a result, I often grade cases by myself. A downside of this approach is that it is not always possible to provide quick feedback. Students however often request quick feedback. While I will make an effort to provide feedback as quickly as possible, I would like to emphasize a few ways that students can proactively address this issue.
- First, note that after each case is submitted, it is discussed in class. This class discussion is a form of feedback. Although it is not individualized feedback, I am happy to have one-on-one discussions with students in case they want to discuss their approach to the case and how it compared to what was discussed in class. In other words, after the case discussion, if you want to discuss your case write up, I am happy to do so.
- Second, graded assignments are not the only form of feedback. While you are waiting for a
  particular assignment to be returned, if you have questions, I am happy to meet and discuss this
  with students.
- Third, I am happy to discuss any questions you have about an upcoming assignment. This is often done over e-mail (because cases are often due after a weekend), but please consider this as a form of feedback as well.
- Finally, at the end of the course, if you would like to receive feedback on specific assignments, I am happy to provide it.

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#### POLICIES APPLICABLE TO COURSES IN THE ROBERT H. LEE GRADUATE SCHOOL

#### **Attendance**

Excepting extenuating circumstances, students are expected to attend 100% of their scheduled class hours. Absent students limit their own academic potential, and that of their classmates, and cause unnecessary disruption to the learning environment. Students missing more than 20% of the total scheduled class hours for a course (including classes held during the add/drop period) without having received an academic concession will be withdrawn from that course. Withdrawals, depending on timing, could result in a "W" or an "F" standing on the transcript.

#### **Punctuality**

Students are expected to arrive for classes and activities on time and fully prepared to engage. Late arrivals may be refused entry at the discretion of the instructor or activity lead. Students arriving later than halfway through a scheduled class will be treated as absent for that class.

## **Electronic Devices**

Devices such as laptops, tablets, and cell phones are not permitted to be used in class unless directed by the instructor for in-class activities. Students who do not follow the School's policy in this regard may be required to leave the room for the remainder of the class, so that they do not distract others. Research shows that students' use of laptops in class has negative implications for the learning environment, including reducing their own grades and the grades of those sitting around them.

# Citation Style

Please use the American Psychological Association (APA) reference style to cite your sources.

Details of the above policies and other RHL Policies are available at: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,199,506,1625

#### **UNIVERSITY POLICIES AND RESOURCES**

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available on the UBC Senate website at <a href="https://senate.ubc.ca/policies-resources-support-student-success">https://senate.ubc.ca/policies-resources-support-student-success</a>.

## Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

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## **ACKNOWLEDGEMENT**

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəÿəm (Musqueam) people, who for millennia have passed on their culture, history, and traditions from one generation to the next on this site.

## **COURSE SCHEDULE**

(Subject to change with class consultation)

			Readings or	
Class	Date	Topic	Activities	Assessments due
	Oct 26, 2019			
1	8:30am- 9:30am	<ul> <li>Course overview</li> <li>Introduction to supply chains</li> <li>Supply chain outcomes</li> <li>Supply chain management         <ul> <li>Design,</li> <li>coordination,</li> <li>planning and</li> <li>execution</li> </ul> </li> <li>Designing supply chains</li> <li>The make or buy decision and the role of supply chain intermediaries</li> </ul>	<ul> <li>Outcome         Driven         Supply         Chains</li> <li>What is         the right         supply         chain for         your         products?</li> <li>(Both can         be read         after class)</li> </ul>	
	9:30am- 9:45am	Coffee Break	3.00. 3.333	
2	9:45am- 11:45am	<ul> <li>Network design</li> <li>Inventory and transportation cost drivers</li> <li>Cycle stocks and safety stocks</li> <li>Use of continuous and periodic review models</li> <li>Inventory pooling (with demand correlation)</li> <li>Transport mode choice</li> </ul>		

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Syllabus

		<ul> <li>Impact of         centralization and         decentralization         on inventory and         transportation         costs</li> <li>Product design and         supply chains</li> <li>What is the right supply         chain for your products,         and what are the right         products for your supply</li> </ul>		
		chain?		
	11:45am-	Lunch break		
	12:45pm		1	1
3	12:45pm-	<ul> <li>In-class case analysis</li> </ul>	<u>Case:</u> Alko	Alko (group case memo)
	2:45pm	<ul> <li><u>Issue:</u> Design and supply</li> </ul>		
		chains		
		<ul> <li>Distribution system design</li> </ul>		
		and inventory costs		
	2:45pm-	Coffee break		
	3:00pm		T	1
4	3:00pm-	Alko case discussion		
	4:00pm			
_	Oct 27, 2019		Ī	1
5	8:30am- 10:30am	Supply chain		
	10:30am	coordination,		
		planning and execution		
		<ul><li>Managing</li></ul>		
		responsive supply		
		chains		
		<ul> <li>Forecasting</li> </ul>		
		<ul><li>Inventory</li></ul>		
	10.00	management		
	10:30am-	Coffee break		
6	10:45am	• In class case analysis	Caco: HD	LD (group case mema)
6	10:45am- 12:45pm	In-class case analysis	Case: HP	HP (group case memo)
	12.43μπ	<ul> <li><u>Issue:</u> Design and supply chains</li> </ul>		
		Distribution and     transportation system		
		transportation system design		
	12:45pm-	Lunch break		
	1:45pm	Lancii bi eak		

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7	1:45pm- 4:00pm	<ul> <li>Supply chain coordination, planning and execution</li> <li>Managing an efficient supply chain: in-class exercise: Beer game</li> <li>Beer game debrief</li> </ul>	Bring laptops to class				
	Nov 2, 2019						
8	8:30am- 10:00am	<ul> <li>Supply chain coordination, planning and execution</li> <li>Managing an efficient supply chain</li> <li>Case: Barilla</li> </ul>	The bullwhip effect in supply chains	Barilla (individual case report)			
	10:00am- 10:15am	Coffee Break					
9	10:15am- 1:30pm (with a working lunch break)	Global Supply Chain     Simulation game	Making Supply Meet Demand in an Uncertain World	Simulation game group report			
10	1:30pm- 2:15pm	<ul> <li>Global Supply Chain         Simulation game         debrief</li> <li>Brief discussion of         Sport Obermeyer</li> </ul>					
11		<ul> <li>Supply chain management, incentives, sustainability and making good decisions</li> <li>Case: H&amp;M</li> <li>Course wrap-up</li> </ul>		H&M (individual case memo)			
	Sun, Nov 17	•		<ul> <li>Submissions         due (on         course         website)         <ul> <li>Sport</li> <li>Obermeyer</li> <li>(group case</li></ul></li></ul>			

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