

### COURSE INFORMATION

Course title:	Process Fundamentals	Credits:	1.5
Course code:	BASC 500	Class location:	Henry Angus 132
Session, term, period:	2019W2, Period 3	Class times:	Tuesday and Thursday 10am-Noon
Section(s):	001	Pre-requisites:	n/a
Course duration:	Jan 06 to Feb 06, 2020	Co-requisites:	n/a
Division:	Operations and Logistics		
Program:	MBA		

### INSTRUCTOR INFORMATION

Instructor:	Harish Krishnan	Office location:	HA 467
Phone:	604-822-8394	Office hours:	By appointment
Email:	Harish.krishnan@sauder.ubc.ca		

### COURSE DESCRIPTION

An organization's success depends on how efficiently and effectively it *executes* its strategic goals. This requires a detailed understanding of the *processes* that are used to produce and deliver goods and/or services to customers. This module will provide students with an introduction to operations analysis. Topics included are process analysis, capacity analysis, process design, theory of constraints, and lean operations. The module is designed to serve students interested in pursuing a career in operations and supply chain management, and those students with career interests in other areas who wish to expand their knowledge of this area.

### 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:

- Map processes.
- Perform capacity analysis and identify bottlenecks.
- Understand Little's Law and the relationship between throughput, flow time and in-process inventory.
- Understand and quantify the impact of uncertainty on process performance
- Be able to articulate the key principles of lean management.
- Be able to apply the above concepts and tools to specific cases.

## ASSESSMENTS

### Summary

<u>Component</u>	<u>Weight</u>
Individual Assignments	30%
Group case analyses	50%
Class participation	20%
Total	100%

### Details of Assessments

## COURSE MATERIALS & REQUIREMENTS

### ASSESSMENT

#### **Group case analyses:**

- Two case analyses are required: National Cranberry and Manzana.
- For each case analysis, students must work in groups of 3.
- 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.

#### **Individual case memo details:**

- Three case memos are required: Shouldice, Toyota and Alcoa.
- These case memos are to be completed individually by each student, and are short summaries of the key issues in the case.
- Details and guidelines for the case memos will be posted on the course website.

#### **Individual review of The Goal:**

- Each student will need to submit an individual report on The Goal.
- There is no page limit, but most reports are two double spaced pages or less.
- Questions to address in the report will be posted on the course website.

#### **Other details about assignments:**

- Students are free to *discuss* the individual assignments with each other, but each student must complete and submit the assignments individually.

#### **Final Exam:**

There is no final exam for this course.

#### **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.

## LEARNING MATERIALS

### **Course Materials:**

#### **Required:**

#### **1. The Goal: A Process of Ongoing Improvement by Goldratt and Cox**

**NOTE:** This is a fictional story about a manager dealing with operational challenges in his job. The book is written like a novel, but is often used as textbook in some operations management courses (will be available through UBC bookstore).

2. Course pack containing Harvard cases (details about purchasing this will be on the course website).
3. Class notes (will be posted before class on course website: login using <https://canvas.ubc.ca>).

4. Links to some required (and some recommended) readings will be posted on the course website.
5. Syllabus (will be posted on course 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 [Academic Concession Request & Declaration Form](https://webforms.sauder.ubc.ca/academic-concession-rhlee) <https://webforms.sauder.ubc.ca/academic-concession-rhlee>. 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 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.
- Case analyses 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.

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**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.

## 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 <https://senate.ubc.ca/policies-resources-support-student-success>.

### *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.

### **COPYRIGHT**

All materials of this course (course handouts, lecture slides, assessments, course readings, etc.) are the intellectual property of the instructor or licensed to be used in this course by the copyright owner. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline. Audio or video recording of classes are not permitted without the prior approval of the Instructor.

### **ACKNOWLEDGEMENT**

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəyəm (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)

Week	Date	Topic	Readings	Assignments Due
Note: In addition to the readings identified below, please start reading "The Goal" as soon as possible.				
1	Jan 7	Course overview Introduction to Processes House building game	<ul style="list-style-type: none"> <li>Class 1 notes (introduction)</li> </ul>	
2	Jan 9	Process mapping Process analysis	<ul style="list-style-type: none"> <li>Class 2 and 3 notes (process analysis)</li> <li>Kristen's Cookie case</li> </ul>	
	Jan 14	Process analysis continued Kristen's Cookie case discussion	<ul style="list-style-type: none"> <li>Same as above</li> </ul>	
	Jan 16	Impact of variability in processes	<ul style="list-style-type: none"> <li>Class 4 notes (variability)</li> </ul>	
3	Jan 21	National Cranberry case discussion	<ul style="list-style-type: none"> <li>National Cranberry case</li> </ul>	National Cranberry case <u>group analysis</u>
	Jan 23	Shouldice case discussion	<ul style="list-style-type: none"> <li>Shouldice case</li> </ul>	Shouldice case <u>individual memo</u>
4	Jan 28	Manzana case discussion	<ul style="list-style-type: none"> <li>Manzana case</li> </ul>	Manzana case <u>group analysis</u>
	Jan 30	Lean operations and Quality Management	<ul style="list-style-type: none"> <li>Class 8 notes (lean and quality)</li> </ul>	
5	Feb 4	Toyota case discussion	<ul style="list-style-type: none"> <li>Toyota case</li> </ul>	Toyota case <u>individual memo</u>
	Feb 6	Alcoa case discussion Course wrap-up	<ul style="list-style-type: none"> <li>Alcoa case</li> <li>Class 10 notes (wrap up)</li> </ul>	Alcoa case <u>individual memo</u>
		<b>Submit on course website by midnight, Feb 13, 2020.</b>		The Goal <u>(individual) review</u>