

COURSE INFORMATION

Course title:	Operations	Credits:	1.5
Course code:	BASC 550	Class location:	[building code and room no.]
Session and term:	2023W2, Period 4	Class times:	M & W 10:00-11:50am
Section(s):	MM1	Pre-requisites:	n/a
Course duration:	Feb 26 to Mar 30, 2024	Co-requisites:	n/a
Division:	Operations and Logistics		

INSTRUCTOR INFORMATION

Instructor:	Hao Zhang, PhD	Office location:	ANGU 481
Phone:	604-827-3728	Office hours:	M & W 2:00-3:00pm
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[When applicable ...]

Teaching assistant:	Cong Yang
Office hours:	[days of week and times, and location]
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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 services to customers. This course will provide students with the managerial tools needed to understand and articulate the impact of an organization's business processes, and the ability to analyze and continuously improve these processes. The skills developed in this course are relevant for all business students. Topics include:

- process flow analysis
- variability in processes
- project management
- inventory management
- supply chain management (optional)

COURSE FORMAT

Class time will be used for a combination of lectures, problem solving, and case discussions. Attendance is required to accomplish the learning objectives below. Case discussions will assume that students have pre-read the corresponding cases and completed the corresponding quizzes as listed in the course schedule.





LEARNING OBJECTIVES



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

- Explain basic concepts and methods of operations management;
- Analyze the performance of business processes and identify bottlenecks for improvement;
- Quantify the impact of uncertainty and variability on business processes and systems;
- Evaluate important operational decisions such as process design, resource allocation, inventory control, and project management.

SUSTAINABLE DEVELOPMENT GOALS (SDGS)

At UBC Sauder, we are committed to responsible business practices that can have transformative impacts on society. One of the ways we are reinforcing our commitment to responsible business is by showcasing relevant content in our courses via the lens of the [United Nations Sustainable Development Goals](#). In this course, we will touch on topics that relate to the following goals:

Sustainable Development Goal	Description of how and when the goal is covered in the course.
<p>Goal 1: No Poverty</p> 	<p>The primary focus of operations management revolves around the efficient production and distribution of goods and services. This confronts a fundamental challenge in tackling poverty at both local and global levels.</p>
<p>Goal 3: Good Health and Well-being</p> 	<p>Management within the healthcare sector holds considerable significance within operations management. Ensuring accessible and effective healthcare services is paramount in fostering healthy lives and promoting well-being for everyone.</p>
<p>Goal 8: Decent Work and Economic Growth</p> 	<p>Efficiently managing and consistently enhancing operational processes are crucial for the success of organizations, regardless of their size. This is indispensable for stimulating inclusive and sustainable economic advancement.</p>
<p>Goal 9: Industry, Innovation and Infrastructure</p> 	<p>Streamlined processes are the foundation of sustainable industrialization. Proficient project management is essential for constructing resilient infrastructure and implementing innovative solutions.</p>
<p>Goal 11: Sustainable Cities and Communities</p>	<p>Efficiently planning and managing resources, operations, and logistics is vital for creating inclusive, safe, resilient, and sustainable cities and human communities.</p>

	
<p>Goal 12: Responsible Consumption and Production</p> 	<p>A core principle of operations management involves effectively matching supply and demand. This alignment is crucial for cultivating responsible patterns of consumption and production.</p>

ASSESSMENTS

Summary

<u>Component</u>	<u>Weight</u>
Assignments	30%
Case quizzes	10%
In-class quizzes	5%
Final exam	45%
Class participation	<u>10%</u>
Total	<u>100%</u>

Details of Assessments

Assignments: There will be three homework assignments based on lectures. The assignment problems reinforce the concepts of the course materials and enrich your understanding of the subject beyond the immediate scope of the course. Completing these problems in a timely manner will enhance the quality of your in-class learning experience and help you better prepare for the final exam. You may discuss the questions, concepts, and solution approaches with fellow classmates, but you must find the answers independently. The assignments will be given and completed on *Canvas*.

Case Quizzes: There will be three quizzes based on case studies. The objective of these quizzes is to ensure that you put in an honest effort to prepare the cases, give sufficient thoughts to the questions, and consider relevant issues. It will also enhance the quality of your class participation. The quizzes will be open on *Canvas* until 9:30am on the due date.

In-class Quizzes: There will be several in-class quizzes during the lectures. Your answers will be submitted through *Canvas*. For this purpose, you may use a laptop or smartphone in class when instructed to do so.

Final Exam: You are responsible for making sure that you appear for the exam on time. No latecomers will be admitted. Students who fail to write the exam, without prior instructor's permission, will not be given any "make-up" exam. The exam will be open notes and be conducted on *Canvas*. Detailed instructions will be given before the exam.

Class Participation: The participation grade is based on the instructor's evaluation of the quality of each student's contribution in the course. Please carefully read all assigned materials, make a serious attempt to complete exercises and answer assigned questions, and be ready and willing to actively engage in the learning experience. Students may be called to explain concepts in class. We all have something to contribute to the collective learning experience each day, and we all want to benefit from it. Coming prepared will maximize the benefits for everyone. Class participation will be evaluated based on each student's comments and contributions to the class discussions. "Good" participation is that which enhances group learning: it could be a question related to the course materials, an observation, a shared experience, an answer to a question or a relevant news clipping.

LEARNING MATERIALS

Required:

- Course package including the case "Benihana of Tokyo" (instructions posted on *Canvas*)
- Other cases and required material posted on *Canvas*
- Lecture notes (slides) posted on *Canvas*

Estimated cost of required materials: \$5.40 CAD

Additional materials recommended but not required:

- G. Cachon and C. Terwiesch, *Matching Supply with Demand: An Introduction to Operations Management* 3e. McGraw-Hill.

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](#). 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

Code Plagiarism

Code plagiarism falls under the UBC policy for [Academic Misconduct](#). Students must correctly cite any code that has been authored by someone else or by the student themselves for other assignments.

Cases of "reuse" may include, but are not limited to:

- the reproduction (copying and pasting) of code with none or minimal reformatting (e.g., changing the name of the variables)
- the translation of an algorithm or a script from a language to another
- the generation of code by automatic code-generations software

An "adequate acknowledgement" requires a detailed identification of the (parts of the) code reused and a full citation of the original source code that has been reused.

Students are responsible for ensuring that any work submitted does not constitute plagiarism. Students who are in any doubt as to what constitutes plagiarism should consult their instructor before handing in any assignments.

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>.

Respect for Equity, Diversity, and Inclusion

The UBC Sauder School of Business strives to promote an intellectual community that is enhanced by diversity along various dimensions including Indigeneity (including identification as First

Nation, Métis, or Inuit), race, ethnicity, gender identity, sexual orientation, religion, political beliefs, social class, and/or disability. It is critical that students from diverse backgrounds and perspectives be valued in and well-served by their courses. Furthermore, the diversity that students bring to the classroom should be viewed as a resource, benefit, and source of strength for your learning experience. It is expected that all students and members of our community conduct themselves with empathy and respect for others.

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.

Use of Artificial Intelligence

Generative AI (Including ChatGPT) Not Permitted

Any work submitted must be your own original work, written without outside assistance or collaboration. Any use of generative artificial intelligence (AI), including ChatGPT, is not permitted and constitutes academic misconduct. Any student suspected of submitting work that includes AI generated content may be asked for preliminary work or other materials to evidence the student's original and unaided authorship. The student may also be asked to separately explain or support their work. AI identification methods may also be employed by the instructor. After review, if it is determined by the instructor that submitted work likely contains AI generated content, the work may receive a zero and may be subject to further misconduct measures set out in the [UBC Academic Calendar](#).

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ACKNOWLEDGEMENT

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

Class	Date	Topic	Readings or Activities	Assessments due
1	Feb 26 (M)	Course overview Introduction to operations management	Notes on introduction	
2	Feb 28 (W)	Process Flow Analysis Flow charts, capacity rate, bottleneck	Notes on process analysis	
3	Mar 4 (M)	Process Flow Analysis Capacity rate of resource and process, bottleneck, utilization, throughput, inventory		
4	Mar 6 (W)	Process Flow Analysis Inventory build-up, Little's Law, multiple units, product-process matrix		Homework 1 (10:00pm, Mar 7)
5	Mar 11 (M)	Case: Kristen's Cookie Variability in Processes Impact of variability, probability distribution, buffer, OM Triangle	Notes on variability	Case Quiz 1 (9:30am, Mar 11)
6	Mar 13 (W)	Variability in Processes Quantifying variability, single-server queues, P-K Formula		
7	Mar 18 (M)	Case: Benihana of Tokyo Project management Gantt chart, critical path, crashing activities	Notes on project management	Case Quiz 2 (9:30am, Mar 18) Homework 2 (10:00pm, Mar 19)
8	Mar 20 (W)	Inventory Management Importance of inventory management, Economic Order Quantity, cycle stock	Notes on inventory management	
9	Mar 25 (M)	Inventory Management Demand uncertainty, Newsvendor model		
10	Mar 27 (W)	Case: Shouldice Hospital Supply Chain Management (Optional) Course wrap-up		Case Quiz 3 (9:30am, Mar 27) Homework 3 (10:00pm, Mar 29)