

## **MBA/GBUS 816 Production and Operations Management**

**Fall, 2025**

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### **INSTRUCTOR DETAILS:**

Name: [REDACTED]

Phone: [REDACTED]

Email: [REDACTED]

Office Location: [REDACTED]

Office Hours: Wed 2-3 pm or by appointment

### **CLASS DETAILS:**

Class Dates: September 5 – December 5, 2025

Class Times: 3:00 – 5:45 pm

Class Location: [REDACTED]

### **COURSE DESCRIPTION**

This course introduces the basic concepts, processes, and problems associated with the Production and Operations Management (POM) function, which is primarily concerned with productivity. Techniques for solving POM problems will be addressed.

### **LEARNING OBJECTIVES / OUTCOMES**

This course aims to provide students with tools for understanding operational processes and preparing them to analyze and continuously improve the firm's operational performance. In this course, we preview organizations as entities that should match the supply with demand.

By the end of the course students should be able to:

- Understand and know how to implement operations management tools to improve the performance of an organization.
- Define capacity, and describe different ways to measure capacity, assess process capacity, and calculate capacity utilization.
- Describe the principles and elements of lean operations and how they contribute to improved quality and productivity.
- Define the nature and strategic importance of supply chains, inventory management and their linkage to core processes.

### **COURSE EXPECTATIONS**

This course will entail a combination of lectures, seminar discussions, case discussion, videos and guest speakers. As a result, regular attendance in class and active participation in classroom activities are required. **Students are expected to prepare in advance for class and be able to participate in class discussions on case studies.** It is expected that students will read and prepare appropriately for every class. Please read each section of the course outline for expectations on all components of the course.

### **COURSE MATERIALS**

- **Textbook:** *Matching Supply with Demand*. By Gérard Cachon and Christian Terwiesch. 4<sup>th</sup> or 5<sup>th</sup> edition published by McGraw-Hill. The book is available at the U of R bookstore. <http://cachon-terwiesch.net/3e/>
- **Case Package-** extra charges will be added to your accounts.

## **COURSE MANAGEMENT**

The course homepage is available at <http://www.uregina.ca/urcourses/>. Lecture slides, announcements, practice problems, cases and all other related material will be posted on the course web page. It is your responsibility to check the website regularly. Please use the UR-courses email for all communication related to the course. I usually check emails frequently.

## **COURSE ASSESSMENT SUMMARY**

The course grade will be based on two tests, one case report/presentation, practice problem submission and participation. The breakdown is as follows:

Midterm exam	30 %
Practice Questions (10)	10 %
Class contribution	10 %
Case report and presentation	20 %
Final Exam	30 %

For a description of the grading system, consult the Faculty of Graduate Studies and Research link here:

<https://www.uregina.ca/graduate-studies-research/graduate-calendar/grading.html>

## **EXAMINATION**

All exams will be closed book and notes. The midterm exam will be held on Friday October 17 during the lecture time. The midterm exam material and format will be determined and announced later in the term. If you miss your midterm for a valid medical reason (accompanied by evidence), the weight of the midterm will be shifted towards the final exam. The final exam will be held as per the university schedule. For both exams, you are permitted to bring your own double-sided 8 ½ x 11 inch crib sheet (handwritten or printed).

## **PRACTICE QUESTIONS**

Some practice problems will be assigned from the textbook to practice the quantitative material covered in class. Each student is expected to at least attempt to solve all problems and submit their solution at the beginning of the class based on the course schedule. These questions will not be marked. However, you will receive a maximum of 1 mark per submission (e.g. if two questions are assigned and you attempted only one, you will get only 0.5 mark for that submission). The solutions for those problems will be posted on UR courses after class.

## **CLASS CONTRIBUTION**

It is strongly recommended that you attend all classes. Participation during the class is also encouraged. There will be 10% of the total course mark dedicated to your participation in the case studies and lecture discussion. The objective is to create an involved atmosphere to enhance learning.

## **CASE REPORT AND PRESENTATION**

A number of case studies will be used to supplement the course material. Each case study assigned will be discussed during the dates specified on the course schedule. A few questions are suggested to help you prepare for the case study. Each student is expected to prepare for the case study and be involved in the discussions in class.

At the beginning of the term, groups of students will be formed. Each group will select a case study and is expected to submit a detailed analysis for one of the cases and to present the case for the class. The case reports are due December 5, 2025. The non-presenting students are also expected to do some preliminary analysis on the case and participate in the class discussion.

## **ACADEMIC REGULATIONS**

Extensions or requests for changes by students to **final** exams and assignments due dates will require the student to complete a formal request for deferral. The student completes the request, consults with the instructor who must sign the form, and the instructor then submits the form (and any supporting documentation provided by the student) to Faculty of Graduate Studies and Research (FGSR). The decision (approved or denied deferral) is made by FGSR and is usually only approved if there are extenuating circumstances (e.g., illness, death, etc). The decision is sent by mail to the student and it is the student's responsibility to ensure the deferred requirements are met within the outlined time frame. It is also the student's responsibility to follow-up with FGSR if they do not receive a response from FGSR on their submitted request. Requests for deferral received more than two (2) weeks after the final day of the examination period will be denied. The deferral form can be found on the FGSR website at: <https://www.uregina.ca/graduate-studies-research/current-students/forms.html>

## **ACADEMIC INTEGRITY**

While students may use generative AI tools for brainstorming and idea development, the submitted content, analysis, and conclusion must be independently developed by the student. When using AI tools to improve one's own writing, students must retain drafts of the original work prior to modification by AI and have these drafts available for instructors to review if requested.

## **STUDENT RESOURCES**

### **UR Accommodated – Centre for Student Accessibility**

Student Accessibility upholds the University of Regina's commitment to a diverse and inclusive learning environment by providing services and supports for students based on disability, religion, family status, and gender identity, as mandated under Saskatchewan Human Rights legislation and the Duty to Accommodate. Student Accessibility aims to encourage independence, self-advocacy, and equity for all students, while maintaining privacy and confidentiality. Accommodation services and supports are provided from pre-entry through graduation. Students are encouraged to register with Student Accessibility early in order to ensure that registration is complete prior to the beginning of classes.

Students who need these services are encouraged to register with the Centre for Student Accessibility to discuss the possibility of academic accommodations and other supports as early as possible. For more information, see the Center for Student Accessibility website at

<https://www.uregina.ca/student/accessibility/centre-Accessibility/index.html>

### **Student Mental Health**

Counselling services are available to provide accessible, evidence-based, and inclusive psychological services. Mental health and wellbeing is an important component of student success. As such, counselling services strives to support students through responsive, skills-based and proactive engagement. For more information, see the counselling services website at <https://www.uregina.ca/student/counselling/>

### **Writing Assistance**

The Student Success Centre (SSC) offers personalized support services designed to encourage and assist students with academic challenges, develop skills, set goals and connect with others. Both on-line and in-person services, including tutoring and writing skills, are available. <https://www.uregina.ca/student-success-centre/index.html>

### **FACULTY BIOGRAPHY**

██████████ is a Professor of Operations Management and the Associate Dean of Graduate Programs at the Hill-Levene Schools of Business at the University of Regina. ██████████ earned a Bachelor of Science degree in Industrial Engineering, as well as a Master's and a PhD in Management Sciences from the University of Waterloo in Canada.

██████████ primarily teaches courses in Operations Management, Business Analytics, and Project Management. Her research interests include management sciences, operations management, supply chain management, decision support systems, and queueing theory. ██████████ has published articles in various Operations Research journals, including the European Journal of Operational Research, the International Journal of Production Economics, and the International Journal of Operational Research, among others. She is a licensed professional engineer in Saskatchewan (APEGS) and is a member of several organizations, including INFORMS and MSOM. Additionally, she has been an elected councilor at the Canadian Operations Research Society (CORS) since 2024. Currently, her research projects are funded by the Natural Sciences and Engineering Research Council of Canada (NSERC).

## CLASS SCHEDULE

The following is a tentative schedule of topics to be covered during the Semester. It is possible that there will be changes in the schedule as the course progresses. Changes to this schedule will be announced during class in advance of the class periods that will be affected.

Class	Date	Topic/ Case	Reading	Practice Questions Due
1	Sep. 5	Course introductions Process analysis	Ch. 2	
2	Sep. 12	Process analysis (assembly line) Case selection/Case analysis requirements	Ch. 3	2.3, 2.5, 2.10
3	Sep. 19	Labor cost estimation	Ch. 4	3.7, 3.8
4	Sep. 26	Batching and the EOQ Model	Ch. 5	4.4, 4.9
5	Oct. 3	<i>Case 1</i> Lean Operations	Ch. 8	5.6, 5.8
6	Oct. 10	<i>Case 2</i> Waiting time problems	Ch. 9	8.1, 8.2, 8.3
7	Oct. 17	<b>Midterm exam</b>		
8	Oct. 24	Throughput losses	Ch. 10	
9	Oct. 31	<i>Case 3</i> The Newsvendor Model	Appendix A Ch. 14	9.3, 9.4
10	Nov. 7	Risk Pooling	Ch. 17	14.4, 14.5
	Nov. 14	Fall Break (no classes)		
11	Nov. 21	<i>Case 4</i> Revenue Management	Ch. 18	17.4
12	Nov. 28	Supply Chain Coordination	Ch.19	18.3, 18.9
13	Dec. 5	<i>Case 5</i> Guest speaker and final exam review		19.1, 19.3 Case reports due
		Final Exam		