

# SEATTLE UNIVERSITY

## Albers School of Business & Economics

**OPER 3600-01** | Operations & Supply Chain Management | **Fall 2019**

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**INSTRUCTOR:** Greg Magnan, Ph.D. ([gmagnan@seattleu.edu](mailto:gmagnan@seattleu.edu)) [e-mail is best]

Pigott 420 / phone: 206.296.6466

**CLASS TIME:** 3:40 – 5:45 Monday & Wednesday [P306]

**OFFICE HRS:** 2:15 – 3:15 Monday & Wednesday, and appt.

**MATERIALS:** (1) **CoursePack** [<https://hbsp.harvard.edu/import/666222>] (**required**)

(2) *The Goal*, by Eli Goldratt, 3<sup>rd</sup> Revised Edition, 2004, North River (**required**)

(3) GSCM Simulation [link forthcoming] (**required**)

(4) Articles/readings linked in syllabus to web and digital holdings in Lemieux Library

### Course Description

OPER 3600 is designed to help students understand how the operations function—in both service and manufacturing industries—works with other functions to support the business strategy and add value to an organization by: providing superior products and services to its customers, improving the competitive positioning of the company, and supporting financial objectives.

When customers place orders for products or services, the order is eventually routed to the firm's operations function for production and delivery. *Operations* is one of the last functional areas to touch the product or service before it reaches the customer. Therefore, characteristics of the transaction—having the right product or service, at the right price, in the correct quantity, delivered on time, at the correct quality level, and to the right location—affect how the customer perceives the entire company and brand.

*Operations* is the function with the greatest proportion of company assets and labor. As leaders are increasingly being evaluated on the value created by their firms, a well-run operations group can deliver significant returns through intelligent use of assets. The firm's assets are used to transform purchased inputs into value-added goods and services at prices desired by customers and margins desired by leadership. In many firms, 40 - 70% of incoming dollars flow directly to suppliers, and the supply chain area (i.e., supply management) often has responsibility for managing the sourcing of goods and services. The ability of the operations function to **efficiently manage the transformation process** can deliver value to the company. Its **effectiveness** at managing the process can keep customers coming back.

### Learning Goals & Teaching Methods

This class will incorporate a collection of lectures, cases, readings, simulations, and articles from academic and business periodicals to promote operations and cross-functional learning. In-class and online discussions are a **major** component of learning in this course as the experiences of class members help to teach us all. Learning objectives for OPER 3600 include:

- Identify and articulate ways in which a firm's operations supports its business strategy

- Develop awareness of the systems-view of links between operations and other functions
- Demonstrate ways in which operations & SCM affect sustainability and responsibility
- Enhance critical thinking skills
- Improve written, verbal, and visual communication ability, including digital literacy

## Course Requirements

*As is the case in most service encounters, your perceived quality of this course is largely a function of the involvement of you, the student/customer. To that end, the bulk of responsibility for learning is **yours**—keeping current with the reading and participating in case and class discussions are critical to a successful course for all. Late submissions are subject to point penalties.*

**1. OPERATIONS STRATEGY ANALYSIS (20%):** The operations strategy analysis (OSA) project provides an opportunity to assess the relationship between decisions in operations and the firm's value proposition to its customers. Sub-deliverables include a project plan (5%), a digital presentation (85%), a thank-you letter and executive summary (10%), and a peer evaluation.

Students will form teams of about four (4) people and each team will arrange a visit to a local manufacturing or service company for a tour of their operations. Each team will analyze the practices and policies the firm employs within the operations function (i.e., their decisions) and *evaluate how well they support the business strategy and value proposition*. Decision areas for evaluation can include the layout/process flow, process technology, the use of quality tools, materials flow, planning systems, the role of inventory in the supply chain, people, environmental issues, etc. (note that these parallel the topics discussed in the course.) **Addressing the firm's business strategy/competitive environment (e.g., priorities, customers, strategy) and how they are supported by firm's operations, as well as a short set of recommendations, is required.**

The focus in this analysis is to identify how well the **elements of operations support the firm's business strategy**. This analysis should include **recommendations to improve the alignment between business strategy and operations**.

Presentations will be graded on content (analysis of operations support/fit with business strategy) and process elements (e.g., organization, clarity, level of interest), as well as presentation effectiveness. A scoring rubric will be posted on Canvas.

In addition to their slide deck, teams must also submit a copy of a **1-to-2 page written executive summary** of the analysis—which must also be sent to the target company—and a copy of the **thank-you letter**. The purpose of the executive summary is to provide the company the observations and recommendations from a team of sharp students, your gift for their time and access. Teams are responsible for sending the executive summary and thank-you letter to the host companies.

Each team must select the firm they will visit and make all necessary arrangements. Please notify the instructor of your team's choice ASAP so that duplications can be avoided. Keep in mind that, in addition to the larger local companies, there are numerous smaller firms that can be visited. Depending on the industry, companies with less than 10 employees should be avoided as the demarcation between functions and/or processes is often too blurred for proper analysis. Wineries and breweries should be avoided as well—in my experience they do not make for interesting OSA projects. Restaurants, however, are strongly encouraged.

Finally, please recognize that your role is NOT to prepare a marketing presentation of the merits of the firm you visit. Instead, your role is one of **analyst of the operations strategy** of the target firm. **Determining recommendations based on the analysis is required.**

As part of this project, each team must submit a brief **project plan**, which includes a description, goals, milestones, work breakdown structure, and a responsibility assignment matrix. The project plan is due no later than **October 16, 2019**.

NOTE: At the end of the course, fellow team members will evaluate the contributions and efforts of students to their teams and *individual OSA scores may be affected by the results*.

**2. EXAMS (40%):** The midterm (20%) and final exam (20%) will be “take-home” and are comprised of multiple-choice questions and short essay questions. The midterm is due **October 28, 2019** and the final is due **December 11, 2019**. Exams will be posted on Canvas approximately two weeks prior to due dates. [NOTE: **Violations of the Academic Integrity Policy will be processed fully. Please do not trigger this action...no one wins. [Review the policy](#) if you are unsure.**]

**3. “THE GOAL” REPORT (10%):** A scoring rubric for *The Goal* will be posted on Canvas. The write-up should be about 1,000 words and is due **November 20, 2019**. It should include:

- Your opinion of what “the goal” is and a brief description of Goldratt’s measures (T, OE, and I) (~250 words or less)
- Identify and briefly describe what you feel are the three most important steps Alex’s team took to improve the plant. You must identify *how* the steps affect T, I, and OE (~250 words or less)
- Finally, discuss how the concepts of the book might be applied in your firm, division, department, or group. Identify the goal, how you would measure T, I, and OE in your example, the primary constraints faced, and how you might address them. (~500 words or more).

**4. SUSTAINABILITY in OPERATIONS (9%):** Each student will read a company’s most recent citizenship / social responsibility report and write about the primary **social** and **environmental** initiatives—**as they relate to the firm’s operations**—underway in the company and the relevant performance outcomes of these initiatives (if they are available). As a foil to the company’s self-reported information, spend some time researching what other organizations (e.g., NGOs) have to say about the company’s activities, checking to see if they are engaged in potentially harmful activities not mentioned in their report. Comment on these issues (or the lack of them), being sure to cite their sources. The report (see Canvas assignment) should be about 750 words and is due by **October 30, 2019**.

In addition, students will calculate their carbon and water footprints and post results to a Canvas discussion along with two ideas to reduce their footprint. The posts are due by **November 4, 2019**.

**5. CLASS PARTICIPATION (7%):** *Participation, both in class and online, is required.* The quantity of quality contributions to discussions in class AND on Canvas will be evaluated. Please be courteous of others at all times and cognizant of limited discussion bandwidth. Some of the criteria used to evaluate effective class participation for grading purposes include:

- Is the participant a good listener?
- Are points made relevant to the current discussion? Are they linked to the comments of others?
- Is there willingness to participate? Is there willingness to test new ideas or are comments “safe”?
- Do comments clarify and highlight the important aspects of earlier ideas and lead to a clearer statement of the relevant concepts and issues?

**6. SERVICESCAPE OBSERVATION (7%):** Task is to visit a café and observe the servicescape, including physical setting, employees, and customers. Should be posted by **Nov. 13, 2019**.

7. **GSCM SIMULATION REFLECTION (7%)**: You have the option to work with one other student and should submit a paper or voiceover addressing your experience in the simulation. Papers/files are due by the start of class on **October 23, 2019**.

## Grading

A straight grading scale will be used to determine final grades (A = 95-100, A- = 90-94, B+ = 87-89, B = 83-86, B- = 80-82, C+ = 79-77, etc.) Course requirements are assigned the following weights:

Operations Strategy Analysis:	20%	<i>The Goal</i> Report:	10%
Midterm exam:	20%	Sustainability in OPS:	9%
Final exam:	20%	Servicescape Observation:	7%
Class participation:	7%	GSCM Simulation:	7%

## Online / Technology

We will be using a variety of Web 2.0 technologies to support our blended learning this quarter. As the tools are located within the Canvas system, none of the information posted by the class will be available to the general public.

## More on Operations & Supply Chain

Operations management (OM) generally refers to the management of **processes** that efficiently and effectively transform resources into **goods** (e.g., airplanes, ultrasound equipment, furniture) and **services** (e.g., health care, rented cars, education) desired by customers. These goods and services have characteristics that distinguish them in the marketplace, such as high **quality**, low **cost**, high **customization** or rapid **delivery**. In most instances, the operations area dramatically influences how well a firm meets the expectations of customers, and therefore can significantly affect overall company performance, from both a top- and bottom-line perspective. For many companies, a subset of the inputs (e.g., energy, people) and outputs (e.g., wastes, emissions) now place the operations function squarely in the center of company efforts to increase sustainability.

O&SCM are collectively an extremely broad discipline(s), so we will be covering multiple topics in this course, including:

- operations strategy
- system & process design
- quality management
- product & service design
- responsibility / sustainability
- inventory management
- supply chain management
- facility layout
- lean / continuous improvement
- cross-functional relationships

Perhaps the most important contribution of the operations function is that of increasing a firm's **competitiveness** through superior **customer** satisfaction, whether the customer is the next process (internal customer) or the end user (external customer). Managing the above issues **across the globe** increases the complexity as separations in both time and space complicate the efficient movement of goods and effective communication between organizations.

Successful companies demonstrate that world-class performance is achieved through cross-functional

approaches. During this course, we will emphasize the **integration between operations and other disciplines**, including *finance* (e.g., evaluating operations investment decisions), *marketing/sales* (e.g., providing customers what they want when they want it), and *management* (e.g., how people and processes are managed.) We will explore ways in which the functions of *accounting* (e.g., measuring “efficiency” and inventory) and *engineering* (e.g., how products interact with processes and the environment) affect the operations system.

Given the broad nature of operations management and that all organizations in the world offer a product or service (and therefore have “operations”), there are many opportunities to highlight the manner in which operations management interfaces with other functions and disciplines. Examples from student experiences and current employers will contribute to our understanding of what OM is and how firms are working to improve their operations.

A final objective is to introduce students to the **tools and techniques of operations and supply chain**, many of which apply to *all* functions of a business (as well as the processes within those functions.) As firms seek to identify and improve core processes, the operations toolbox associated with improving quality, time/speed, and productivity can (and should) be applied to all facets of an organization. This same toolbox can also be used to improve the firm’s ecological footprint, use of scarce resources, and sustainability performance. Staffing levels, capacity, facility layout and location, process flow analysis, quality improvement, and cycle time reduction are examples of topics in which the analytical tools can be applied to other functional areas.

## University Resources and Policies

### Academic Resources

- Library and Learning Commons (<http://www.seattleu.edu/learningcommons/>)  
(This includes: Learning Assistance Programs, Research [Library] Services, Writing Center, Math Lab)
- Academic Integrity Tutorial (found on Canvas and SU Online)

Academic Policies are on the Registrar website: (<https://www.seattleu.edu/redhawk-axis/academic-policies/> )

- Academic Integrity Policy
- Academic Grading Grievance Policy
- Professional Conduct Policy

Notice for students concerning disabilities:

*If you have, or think you may have, a disability (including an ‘invisible disability’ such as a learning disability, a chronic health problem, or a mental health condition) that interferes with your performance as a student in this class, you are encouraged to arrange support services and/or accommodations through Disabilities Services staff located in Loyola 100, (206) 296-5740. Disability-based adjustments to course expectations can be arranged only through this process.*

### Office of Institutional Equity

*Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in educational programs or activities that receive Federal financial assistance. This prohibition includes sexual misconduct, which encompasses sexual harassment and sexual violence. Seattle U remains committed to providing a safe and equitable learning, living, and working environment. Seattle U offers emergency, medical, and other support resources, as well as assistance with safety and support measures, to community members who have experienced or been impacted by sexual misconduct.*

Seattle U requires all faculty and staff to notify the University’s Title IX Coordinator if they become aware of any incident of sexual misconduct experienced by a student. For more information, please visit <https://www.seattleu.edu/equity/>. If you have any questions or concerns, you may also directly contact the Title IX Coordinator in the Office of Institutional Equity (**email:** [oiie@seattleu.edu](mailto:oiie@seattleu.edu); **phone:** 206.296.2824)

## TENTATIVE COURSE SCHEDULE

OPER 3600 | Fall 2019 (v1.0) [Use Canvas if discrepancies]

# / Date		Topics	Articles / Cases / Videos	Due
1	Sept. 25	Introduction to Operations & Supply Chain Management	Course introduction <a href="https://www.supplychaindive.com/news/J-and-Johnson-reformulates-baby-care-supply-chain/533198/">https://www.supplychaindive.com/news/J-and-Johnson-reformulates-baby-care-supply-chain/533198/</a>	Create Teams
2	Sept. 30	Operations Strategy & Process Types	“OMR: Designing, Managing, and Improving Operations” [HBP Pack] VIDEO: “Manufacturing Processes” [link] CASE: American Connector [HBP Pack]	Personal Statement
3	Oct. 2	Quality Management and Process Improvement [HYBRID]	“OMR: Managing Quality” [HBP Pack] VIDEOS: Quality in Health Care (links) Quality HC web sites	
4	Oct. 7	Quality Management and Process Improvement	<a href="#">The Checklist (New Yorker, 2007)</a> <a href="#">The Checklist Conundrum (NEJM, 2014)</a> Fixing Health Care from the Inside, Today (HBR, 2005)	
5	Oct. 9	Quality Management and Process Improvement	Fixing Health Care on the Front Lines (HBR, 2010) The Goal: Ch. 1-10	
6	Oct. 14	Process Analysis and Mapping	“OMR: Process Analysis” [HBP Pack] SKIM: Using Product Profiling to Illustrate Manufacturing-Marketing Misalignment (Interfaces, 1998) The Goal: Ch. 11-20	
7	Oct. 16	Inventory & Supply Chain Management	“OMR: Managing Inventory” [HBP Pack] <a href="#">Supply Chains Built for Speed and Customization (SMR, 2017)</a> VIDEO: Inventory Overview videos (3) [Quiz]	Project Plans (for OSA project)

# / Date	Topics	Articles / Cases / Videos	Due
8 Oct. 21	Inventory & Supply Chain Management	<a href="#">Running Inventory Like a Deere (SCQ, 2007)</a> "OMR: Strategic Sourcing" [HBP Pack] "OMR: Supply Chain Management" [HBP Pack]	
9 Oct. 23	Inventory & Supply Chain Management	<a href="#">"When One Size Does Not Fit All" (SMR, 2013)</a>	GSCM Simulation Reflections
10 Oct. 28	Supply Chain Risk Management Sustainability	VIDEOS: <a href="#">Story of Stuff</a>   <a href="#">Business Logic of Sustainability</a> The Goal: Ch. 21-30	Take-home Midterm due
11 Oct. 30	Sustainability & Responsibility	<a href="#">Sustainability Lessons from the Front Lines (SMR, 2017)</a> <a href="#">What's Your Strategy for SC Disclosure? (SMR, 2016)</a>	Sustainability in OPS & SCM report
12 Nov. 4	Sustainability & Responsibility	<a href="https://www.starbucks.com/responsibility">https://www.starbucks.com/responsibility</a> <a href="#">Corporate Sustainability at a Crossroads (SMR, 2017)</a>	Carbon & Water Footprint
13 Nov. 6	Service Operations: Processes	<a href="#">The CEO Guide to Customer Experience (McKinsey, 2016)</a> <ul style="list-style-type: none"> <li>View: 'Seeing through customers' eyes' and 'Improving the customer experience' from above</li> </ul> SKIM: Servicescapes: impact on customers and employees (JoM, 1992) [Canvas]	
Nov. 11		Veterans Day Holiday – No Class	



# / Date	Topics	Articles / Cases / Videos	Due
14 Nov. 13	Service Operations: Customer Experience	Health Care's Service Fanatics (HBR, 2013) <a href="#">The Four Pillars of Distinctive Customer Journeys (McKinsey, 2016)</a> <a href="#">5 Essential Components of Effective Customer Journey Maps (tandemseven)</a> The Goal: Ch. 31-40	Servicescape Observation & Post
15 Nov. 18	Service Operations: Customer Experience	Queuing Theory   Waiting Lines  SKIM: <a href="#">Service Blueprinting: A Practical Technique for Service Innovation (CMR, 2008)</a>	
16 Nov. 20	Project Management	"Project Management Manual" [HBP Pack]	<i>The Goal</i> report
17 Nov. 25	Lean Thinking	<a href="#">Problem Solving By Design (SMR, 2009)</a> <a href="#">Toyota's Secret: The A3 Report (SMR, 2009)</a>	
Nov. 27		Thanksgiving Holiday – Be Thankful	
18 Dec. 2	Lean Thinking	The Promise of Lean in Health Care (Mayo, 2013)	Draft Presentation Slides
19 Dec. 4	<b>Presentations</b>	Operations Strategy Assessment Presentations	
20 Dec. 11	<b>Presentations</b>	Operations Strategy Assessment Presentations (Wednesday)	Take-home Final