## **BUSI 403 - SECTIONS 3, 4**

#### OPERATIONS MANAGEMENT

#### **Fall SEMESTER 2024**

#### **COURSE SYLLABUS**

Course Instructor: Professor Saman Lagzi

Office: McColl 4713

Office Hours: Tuesday, 2:00 PM -3:00 PM

Or by appointment – please email to set up a meeting

Email: saman\_lagzi@kenan-flagler.unc.edu

Teaching Assistant: Zhanzhi Zheng (zhanzhi\_zheng@kenan-flagler.unc.edu)

Grader: Yue (Vicky) Wu (vicky\_wu@kenan-flagler.unc.edu)

Course Meeting Times Section 3: TTH: 11:00 AM-12:15 PM, McColl Bldg-Rm 3250

and Location:

Section 4: TTH: 12:30 PM-041:45 PM, McColl Bldg-Rm 3250

OPTIONAL Course Text: David A. Collier and James R. Evans, *OM* <sup>6</sup>

6<sup>th</sup> Edition. South-Western Cengage Learning.

Required Readings: Articles from current business periodicals illustrating operations issues in

practice. Details are provided on the course schedule.

#### Course Description:

This course is designed to provide the student with an understanding of the foundations of the operations function in both services and manufacturing. The course will analyze operations from both the strategic and operational perspectives and highlight the competitive advantages that operations can provide for the organization.

#### Course Objectives:

This course has several objectives. They are:

- 1. The student should understand the tradeoffs among different types of production/operations systems in terms of key characteristics, management tasks, organization and control, and impact on the strategy and direction of the firm.
- 2. The student should understand the strategic production/operations management issues and their relationship to the other functional areas of the firm.
- 3. The student will develop a basic competence with the tools and techniques used by operations professionals in managing operations and setting operations policy.
- 4. The student should begin to develop an understanding of the managerial implications of alternative operations policies and techniques.

#### Prerequisites:

It is assumed that each student will have completed the set of requirements for entering the BSBA Program including a working knowledge of basic statistics tools and distributions. Each student must be comfortable using EXCEL. Statistical Applications:

Effective operations management incorporates the management of variation and uncertainty with respect to both demand and process capacity. Students will discover that the course applies statistical tools, which have been introduced in prerequisite courses, to real business problems. Students should familiarize themselves with the following statistical tools for the course topics listed.

Topic Statistical Tools

Forecasting Simple Linear Regression

Process Capacity Using the mean and variance of statistical distributions Inventory Management Confidence intervals around estimates of the mean

Quality Control Hypothesis testing

# **Ethical Responsibilities:**

Operations managers must operate complex systems within physical and social environments. Often operations management presents special challenges in satisfying the conflicting needs of different stakeholders, including customers, suppliers, employees, stockholders, lenders, and even government agencies. Identifying ethical and socially responsible responses to these challenges is not always obvious. As time permits, the course will emphasize some of the ethical dilemmas faced by operations managers.

## Class Procedure:

Material will be presented predominantly in lecture format. The intent is that lectures will be presented "in person", however, we will be prepared to move class to a virtual environment, if required. During lectures a full interchange between the professor and the student is expected, regardless of your method of attendance.

#### Class Participation:

Student Participation will take shape in a variety of forms. Each learning space will have a unique approach to engage with your classmates, course content and faculty will have unique expectations in each setting. The participation portion of the grade includes completing pre-class readings and assignments and actively engaging in class discussions through thoughtful questions and comments. In addition, I expect students to arrive at class on time.

As student participation will take shape in a both Onsite and Virtual forms, the following guidance is provided regarding expectations:

Space	Expectations		
Onsite in the physical	<ul> <li>Be present and ready to share thoughtful insights from pre-class reading</li> </ul>		
classroom	and assignments		
	<ul> <li>Laptop is not allowed unless the instructor requires it</li> </ul>		
	<ul> <li>Participate in polls conducted through class</li> </ul>		
Virtual Class in Zoom	<ul> <li>Cameras are required to be on in Zoom for the duration of the class</li> </ul>		
(if required)	<ul> <li>Students should keep their audio muted except when speaking</li> </ul>		
	<ul> <li>Be present and ready to share thoughtful insights from pre-class reading</li> </ul>		
	and assignments		
	<ul> <li>Participate in polls conducted through class</li> </ul>		
LMS	<ul> <li>Assignment submissions will be conducted through Canvas.</li> </ul>		
	<ul> <li>Participation in weekly exercises such as reflection questions, discussion</li> </ul>		
	boards, or other media are required and part of class participation.		

Each student is expected to come to class prepared (including having read assigned material) and ready to actively contribute to the educational experience for the entire class. If you miss opportunities to speak in class, you may participate by finding articles that are relevant to the topics we are discussing in newspapers (e.g., Wall Street Journal), journals (e.g.,

BusinessWeek, Fortune, Forbes, Economist) or online video (e.g., You Tube). The media may explain how an actual firm is confronting the same issues that we are discussing in class; a discussion of the actual application of a technique that we have discussed, or a video demonstrating a relevant concept in an engaging manner. Please alert me when you have a contribution as soon as possible so I can work the article or video clip into the class presentation. You will be asked to comment on your contribution. Only one student will be given credit for a given article or clip. My objective is to have every student develop a bit of comfort speaking up and contributing in class. However, I realize for some that may be a bit overwhelming. If you have concern about your ability to speak in class, please contact me so we can determine an alternative solution.

#### Accessibility Resources:

The University of North Carolina at Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in difficulties with accessing learning opportunities.

All accommodations are coordinated through the Accessibility Resources and Service Office. See the ARS Website for contact information: <a href="https://ars.unc.edu">https://ars.unc.edu</a> or email <a href="mailto:ars@unc.edu">ars@unc.edu</a>.

Relevant policy documents as they relate to registration and accommodations determinations and the student registration form are available on the <u>ARS website under the About ARS tab.</u>

#### **Professional Behavior:**

All students are expected to conduct themselves professionally and respectfully during class, which means being attentive and considerate of others in the class. The instructor may ask you to bring your laptop to class on certain days for in-class exercises. It is inappropriate to use your laptop or tablet in class for sending e-mail, for surfing the web, for texting your sweetie, for trading stocks and bonds, for playing solitaire, for doing your accounting homework, and so on. Participation scores may be adjusted for students who display unprofessional or disruptive behavior.

#### Honor Code:

"It shall be the responsibility of every student at The University of North Carolina at Chapel Hill to obey and to support the enforcement of the Honor Code. The Honor Code prohibits plagiarism, falsification or misrepresentation of an academic assignment, unauthorized collaboration on academic work, and cheating on examinations or other academic assignments. If you have questions about your responsibilities under the Honor Code, please consult the document *Instrument of Student Judicial Governance*. If you have any questions about whether a proposed action is permitted in this class, you should ask the instructor

#### Academic Dishonesty:

It shall be the responsibility of every student enrolled at the University of North Carolina to support the principles of academic integrity and to refrain from all forms of academic dishonesty including, but not limited to, the following:

- 1. Unauthorized assistance or unauthorized collaboration in connection with academic work, whether or not for a grade.
- 2. Cheating on examinations or other academic assignments, whether graded or otherwise, including but not limited to the following:
  - a. Using unauthorized materials and methods (notes, books, electronic information, telephonic or other forms of electronic communication, or other sources or methods);
  - b. Violating or subverting requirements governing administration of examinations or other electronic assignments;
  - c. Compromising the security of examinations or academic assignments;
  - d. Representing another's work as one's own; or
  - e. Engaging in other actions that compromise the integrity of the grading process.

#### Homework:

Homework sets are assigned at periodic intervals throughout the course as indicated on the syllabus. These assignments are intended for the student to become more familiar with the concepts that are covered in the course. Some of the homework

exercises will require the use of the computer and computer software such as EXCEL. Conceptual discussion of homework exercises with classmates is allowed, however, each student must independently solve each problem and prepare and handin his/her own work.

Homework is to be presented in a neat, orderly fashion in a manner that would be presentable to a supervisor on a job. **Solution processes and final answers must be clearly presented and easily identifiable by the grader** – the grader is NOT required to give credit for messy or poorly organized documents where solutions and final answers are not clearly presented.

You should submit a single Word, PDF or Excel document using the "File Upload" method on Canvas. If you submit an Excel document containing multiple worksheets, each worksheet tab should have a proper label showing problem/part number. "Comments" will not be considered when grading. <u>Unless stated otherwise</u>, <u>your homework is due at 11:59pm on the due date announced for each assignment. Late homework <u>will not</u> be accepted since problem solutions will be posted on the course website by 12:00 AM on the day (minute) following when the homework is due.</u>

Seven homework sets will be assigned throughout the semester. You are expected to turn in all homework sets. However, we will drop your score from the homework set on which you lost the most points.

#### **Examinations:**

During the semester, there will be two tests and one final examination. Each of the midterm tests will primarily emphasize the material covered during the previous four or five weeks. The midterm tests will be scheduled during class time as indicated in the following course schedule. The final examination is comprehensive for the entire course and is given only at the specified time as published by the University Registrar. The final and midterm tests are open book and open note exams. Information presented in team projects may be included on the final exam.

## Webpage and email:

The BUSI 403 course uses a Canvas course portal that contains electronic copies of the course syllabus, homework assignments (and solutions), practice problems and other course materials. Files will be posted at appropriate times during the semester so students should check the site regularly. Access the BUSI 403 Course portal as follows: Go to <a href="https://kenan-flagler.instructure.com/">https://kenan-flagler.instructure.com/</a>. Log in using your K-F ID and password.

The BUSI 403 faculty at various times during the semester will make announcements that will be sent to your email via Canvas. Be sure to check your email regularly for such messages. If you regularly use another email address, please link your Canvas email address to that provider's system.

#### Course Project:

The course project will allow students to see topics discussed in the course being used in real firm settings. Each student in the class will be a member of a project group. During the semester, the project group will visit a manufacturing plant or service operation. As a team, the group will prepare both an oral presentation and a written presentation of what was learned on the tour. Although the entire group will be graded on both presentations, each team member will be allowed to provide a peer evaluation of other team members. An individual student's grade will be a composite of the team grade and his/her peer evaluations. Here is the procedure to be used:

- 1. Student groups of 5-6 people will be formed. (Any additional constraints on the number of people on a team will be announced in class.) Group preferences should be submitted no later than August 29<sup>th</sup> please submit one request for the entire group. Although the preferences of individual students will be honored where possible, the instructor reserves the right to alter the team membership by adding or deleting team members to assure that all teams have roughly the same number of people. Group requests may include a maximum of six students. If a student prefers not to identify preferred group-mates, he/she must still submit his/her name by the due date and the instructor will place that student on a team.
- 2. The team will meet to determine group availability for meeting times and places. In addition, the team should assess interests and contacts in terms of an appropriate operation to visit.

- 3. Each team should provide the instructor with a list of the operations in preferential order that it would like to visit. Any personal contacts and the nature of the operation should be indicated. It is not necessary for the facility to be located close to Chapel Hill; facilities in home towns or where friends and relatives work are acceptable. Each team will provide its list to the instructor no later than **September 24<sup>th</sup>**. The instructor will approve the assignment of a facility to a team to assure that there is no duplication of teams visiting the same facility. Priority will be given to teams with a personal contact at the desired facility.
- 4. A plant tour information guide (TOURGUIDE in the Group Project Info folder) is available on Canvas. Read this carefully prior to contacting and visiting your assigned facility.
- 5. Oral presentations will be scheduled during the last 4 weeks of the semester. Each presentation should be no longer than 20 minutes in length, including time for questions and answers. Obviously, in this short time you can't inform the class of everything you learned, so you should confine your presentation to a short description of the firm, a discussion of key processes, examples of the use of the techniques discussed in class, any major operations initiatives ongoing at the plant, and your operational recommendations. Your written report should contain more detailed information. Your instructor will announce the due date for the written reports.
- 6. Peer and facility evaluation forms will be available toward the end of the semester and must be completed by each team member.
- 7. Once groups have been formed, there will be additional handouts providing greater detail about the group project.

#### BUSI 403 Course Grade Breakdown:

Homework	10%
Attendance	10%
Class Participation	5%
Course Project	10%
Test 1	20%
Test 2	20%
Final Exam	25%

#### Attendance Grade Breakdown:

# of absences Grade Scale (of 10% grade contribution)

0-2 10% earned 3 7% earned 4 4% earned >4 absences 0% earned

# Attendance Guidelines:

No right or privilege exists that permits a student to be absent from any class meetings, except for these University Approved Absences:

- 1. Authorized University activities
- 2. Disability/religious observance/pregnancy, as required by law and approved by <u>Accessibility Resources and Service</u> and/or the <u>Equal Opportunity and Compliance Office</u> (EOC)
- 3. Significant health condition and/or personal/family emergency as approved by the Office of the Dean of Students, Gender Violence Service Coordinators, and/or the Equal Opportunity and Compliance Office (EOC).

Please be aware that you are bound by the Honor Code when making a request for a University approved absence.

Students are expected to attend every class session, including the sessions when we have team presentations and are expected to arrive promptly, be engaged in and contribute to the class, and not leave class early.

# Core Values: Instructor and Student Responsibilities:

Kenan-Flagler has four core values – Integrity, Inclusion, Innovation, and Impact – that provide a guiding framework for our community's norms and standards. These values should govern objectives and behavior across programs and contexts. Below are ways to apply these values to course conduct:

Core Value	Instructor Responsibilities	Student Responsibilities
Integrity The foundation for our individual and organizational success. Every member of our community must work to be honest, fair, reliable, and trustworthy; reject dishonest and unethical behavior; treat others respectfully and professionally; and take responsibility for their actions as both leaders and team members. Doing the right thing unites us as a community.	<ul> <li>Set clear expectations for students regarding the UNC Honor Code and report suspected violations to the Honor Court.</li> <li>Adhere to Kenan-Flagler grading standards for evaluating performance and attendance.</li> <li>Seek out and incorporate feedback from students, faculty, and staff regarding course improvements.</li> <li>Communicate and enforce policy regarding appropriate (and inappropriate) use of technology in the classroom.</li> <li>Communicate the relevance of course goals to students' business education.</li> </ul>	<ul> <li>Understand and uphold behaviors mandated by the Honor Code and the standards for classroom conduct.</li> <li>Report any suspected violations by your peers of the Honor Code.</li> <li>Prepare for and attend class sessions with prompt arrival.</li> <li>Adhere to the policy regarding technology use in the classroom.</li> <li>Participate in both in-class and in-group assignments.</li> <li>Be responsible in treating all other students with respect</li> </ul>
Inclusion  Every individual should have the same access to opportunities, be treated equitably and feel valued. Our community celebrates diversity as a source of strength and welcomes different backgrounds, opinions and experiences. We welcome new ideas and perspectives along with vigorous debate to learn from each other. As we develop a better understanding and appreciation of our differences, we can reach our full potential as individuals and as a community.	<ul> <li>Create a welcoming classroom with an inclusive environment, where diversity, equity, inclusion, and belonging are honored and celebrated.</li> <li>Provide students with equal access to all materials and opportunities.</li> <li>Treat every student respectfully and responsibility.</li> <li>Incorporate inclusive teaching tools.</li> <li>Call on students beyond volunteers to contribute to class discussions.</li> <li>Share and encourage students to express multiple and diverse views on course subjects, as appropriate with respectful communication.</li> </ul>	<ul> <li>Support a classroom climate of diversity, equity, inclusion, and belonging among all students and their peers.</li> <li>Support equal opportunity access and seek it from the instructor, when needed.</li> <li>Ensure all fellow students feel like they belong (in live classes, in Canvas, in breakout rooms, and in group work).</li> <li>Engage in respectful and responsible discourse when students hear opinions and perspectives that they may disagree with.</li> <li>Come to the instructor with any comments or issues related to diversity, equity, and inclusion.</li> <li>Reach out to the Kenan-Flagler DEI Office (Sherry Wallace &amp; Elizabeth Dickinson) with any comments or for help.</li> </ul>

#### **Core Value Instructor Responsibilities Student Responsibilities** Challenge students to push Challenge fellow students Innovation themselves by thinking critically during class discussions and team A spirit of innovation has been part of about the course content. meetings to think critically, the Business School since its founding in question assumptions, and develop Use a variety of pedagogical 1919, and sets the stage for our future analytical thinking and emotional approaches to engage and success. Not content with the status intelligence skills. involve students in the learning quo, our commitment to excellence process. Respond openly to the use of leads to innovative methods in teaching varied pedagogical approaches Provide rigorous, meaningful, and creating knowledge in our and ways of learning. and relevant course content and research. We take risks - to learn, deliverables. Challenge to think differently about topics, including in ways Deliver timely feedback on change, and grow – and embrace new that stretch perceptions and assignments so that students know ideas. If we fail, we learn and move on. preconceived notions. how to take risks, correct, learn, When we succeed, we celebrate and and grow. Understand we are all on a move forward, asking what is next, learning path that requires us to Acknowledge and celebrate what is better and what we can learn. grow; to do that, sometimes we when students do well, grow, and have to take risks and not do as well succeed. as we'd like or even fail. Understand that instructors Recognize moments of are also subject to making mistakes, success and how that helps on our failing, taking risks, learning, and learning journeys. growing. Contribute constructively to all Share ideas and encourage **Impact** group assignments and not class members to learn from each With our work, we create change. We leave most of the work to other other are stewards of an institution that has students. Provide opportunities for affected, and will affect, many lives. As Participate actively and team assignments, but to assign no we develop leaders in business and more than 40% of graded class constructively in class discussions. create new knowledge, we have the work to teams so that the instructor Come to the instructor's responsibility and the obligation to have is evaluating the impact of both office hours or contact instructor a positive impact on our society through individual and group work. with concerns or questions about our actions. Be available to students for the course or material. questions or discussions Understand that behavior, outside of class time. both in and outside of the Set and enforce expectations classroom, has an impact on regarding acceptable classroom everyone, the instructor, the behavior. University, and our community.

#### Commitment to Running an Inclusive Classroom and Creating a Supportive Environment:

UNC students have many different backgrounds, life experiences, cultural groups, and unique learning styles. I am committed to running a classroom where all students feel that they: are part of the class, can relate to the course material, belong among their classmates, are treated respectfully, and learn successfully. Please let me know if you need anything from me to help you succeed.

To create a classroom environment that supports belonging and respectful, critical inquiry through the free and respectful exchange of ideas, the following principles will guide our class and discussions:

- My goal is to design and teach a class that fosters talent in and perspective from all students.
- We can all differ on any number of perspectives, opinions, and conclusions.
- Constructive (and sometimes difficult) discussions can sharpen thinking, deepen understanding, and reveal insights, and so these discussions are expected.

- Always treat every class member with responsibility and respect in live classes, Zoom sessions, in Canvas, in breakout rooms, in small groups, even if—especially if—you come from different perspectives or disagree with someone's opinion.
- Assume positive intent by your classmates and myself. We may make mistakes. We are human.
- Also know that, even if you have positive intentions in what you say, you may negatively affect others. Be open to hearing that something you said may have impacted someone negatively.
- Be thoughtful to current events, past experiences, and where others may be coming from.
- I will do my best to moderate the discussion, understand every position, and perhaps even challenge it. If the discussion veers of course, I may have to pause. I will then address the topic/issue later, either in class or offline.
- I will also do my best to address concerns students have about our discussions, either in class or, if we don't have time, outside of class. Here again, please assume positive intent and the fact that I am human and make mistakes. If you ever want to talk about something that I have said/done or someone else has said/done, please reach out to me so we can talk.

#### Title IX Resources:

Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Reports can be made online to the EOC at <a href="https://eoc.unc.edu/report-an-incident/">https://eoc.unc.edu/report-an-incident/</a>. Please contact the University's Title IX Coordinator (Elizabeth Hall, interim – <a href="mailto:titleixcoordinator@unc.edu">titleixcoordinator@unc.edu</a>), Report and Response Coordinators in the Equal Opportunity and Compliance Office (<a href="mailto:reportandresponse@unc.edu">reportandresponse@unc.edu</a>), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators (<a href="mailto:gysc@unc.edu">gysc@unc.edu</a>; confidential) to discuss your specific needs. Additional resources are available at <a href="mailto:safe.unc.edu">safe.unc.edu</a>.

# **COURSE SCHEDULE**

DAY	<u>DATE</u>	TOPIC	TEXT & READINGS	PROB SE	
				ISSUED	DUE
Tue	August 20	Introduction to Operations Management -What is operations management? -The OM function -Manufacturing and Service Operations	Chapter 1 pp 2-11, 19-23		
Thu	August 22	Forecasting Demand (1) -Time Series -Accuracy	Chapter 9 pp. 178-188 Reading #1: The Software That Could Make Airport Lines Less Miserable	A	
Tue	August 27	Forecasting Demand (2) -Advanced Time Series -Regression	Chapter 9 pp. 188-192		
Thu	August 29  PROJECT TEAM PREFERENCES DUE	Process/Capacity Analysis (1) -Process Analysis -Bottlenecks -Estimated capacity -Utilization	Chapter 10 pp. 201-205 <b>Reading #2</b> : Subaru's got a big problem	В	A
Tue	September 3	WELLNESS DAY NO CLASSES			
Thu	September 5	Process/Capacity Analysis (2) -Capacity Analysis (cont.) -Class Examples	Chapter 7, pp. 146-148		
Tue	September 10	Inventory Management (1) -Inventory Policy -EOQ Analysis -Periodic vs. Continuous Review	Chapter 121 pp. 220-228	С	В
Thu	September 12	Inventory Management (2) -Safety stock -the impact of variability, lead time and service level -ABC classification	Chapter 11 pp. 228, 232		
Tue	September 17	Introduction to Operations Strategy -Dimensions of competition: Cost/Time/Quality/Flexibility -Process Choice	Chapter 3, pp 50-65 Chapter 7, pp. 132-138 Reading #3a: Boeing Reading #3b: Tesla		C
Wed	September 18	OPTIONAL review session by t	he course instructor on ZOOM 3-4PM		
Thu	September 19	<b>TEST 1: During Regular Class Time</b>			
Tue	September 24 PROJECT FACILITY PREFERENCES DUE	Aggregate Planning (1) -Concepts -Chase and level strategies	Chapter 13 pp. 271-274	D	
Thu	September 26	Aggregate Planning (2)	Chapter 13		

		-Hybrid Strategies -Rolling horizon planning	pp. 271-274		
Tue	October 1	Operations Control -Push Systems -Master Production Scheduling	Chapter 13-4a, pp. 274	Е	D
Thu	October 3	Operations control – push systems -Material Requirements Planning	Chapter 13-4b, 4c pp. 275-282		
Tue	October 8	Supply chain design and collaboration -The Bullwhip effect -Component commonality/postponement -Risk Pooling -CFPR	Chapter 6, pp. 106-109  Reading #4a: Stress Test for the Global Supply Chain  Reading #4b: Apple watch the slow rollout		E
Thu	October 10	Lean operations -Pull Vs. Push systems -JIT systems -Waste, set-up reduction, Kanban	Chapter 17 pp. 354-365 <b>Reading #5a</b> : Latest Starbucks buzzword <b>Reading #5b</b> : When Toyota met e-commerce: Lean at Amazon		
Mon	October 14	OPTIONAL review session by the course instructor on ZOOM 3-4PM			
Tue	October 15	TEST 2 DURING REGULAR CLASS TIME			
	<b>October 17, 18</b>	Spring Break – NO CLASSES			
Tue	October 22	WELLNESS DAY NO CLASSES			
Thu	October 24	Waiting line analysis - 1 -The capacity/customer service tradeoff -The impact of uncertainty			
Tue	October 29	Waiting line analysis - 2			
Thu	October 31	Quality Management -What is Quality -Quality tools (e.g., root cause analysis) -Philosophies (e.g., Six Sigma)	Chapter 15 pp. 314-331 Reading #7a: Toyota quality issues Reading #7b: VW ambitions fueled a scandal Reading #7c: VW lost its moral compass	F	
Tue	November 5	Quality – Statistical Process Control -Mean and Range Charts, p-charts	Chapter 16 pp. 339-345		
Thu	November 7	Quality – Process Capability -What is Process capability -Capability vs. Inspection	Chapter 16, pp. 347-349	G	F
Tue	November 12	Project Management -Critical path	Chapter 18 pp. 376-382		
Thu	November 14	Project Management -Crashing	Chapter 18, pp. 382-384		G
Tue	November 19	Team Presentations Day 1			
Thu	November 21	Team Presentations Day 2			
Tue	November 26	Team Presentations Day 3			
Tue	December 3	Course Wrap-up and Review			_
Thu	December 5	OPTIONAL review session fo	or the final by the course instructor on $ZOOM 3 - 4$	4PM	

Final Exam Date for Section 3: Tuesday, December 10, 12:00 pm. Final Exam Date for Section 4: Monday, December 9, 4:00 pm.

## **Required Readings:**

A variety of articles are assigned for reading on specified dates throughout the course. Students should be prepared to discuss each article on the date assigned. Some will be revisited during subsequent class periods. All articles are available for download from Canvas (Files – Class Sessions). Copies of articles will NOT be distributed in class.

**Reading #1** Wired 10/9/16 "The Software to Make Airports Less Miserable Finally Hits the US"

What is the purpose of the software? What does the software predict?

What are these predictions used for?

**Reading #2** WSJ 8/2013 "Subaru's Got a Big Problem"

What is Subaru's situation at the time of this article? Paragraph 2 of the article mentions risk. Explain the risk faced by Subaru, and why this risk is more significant for Subaru than for Ford? What does it mean to be a "niche player"? Advantages/disadvantages of being a niche player?

Reading #3a WSJ 12/2009 "Boeing Looks Beyond Dreamliner's First Flight" What

competitive priorities does Boeing choose to focus on?

What operational challenges does Boeing face?

**Reading #3b** WSJ 7/2016 "Tesla Races to Finish 'Gigafacory' in Time for Model 3 Rollout"

What issues did Tesla have to consider when planning this new plant?

Relate Tesla's decisions about this plant to the company's positioning and competitive priorities.

**Reading #4a** NYT 03/2011, "Stress Test for the Global Supply Chain"

-How and why did the earthquake in Japan affect U.S.-based companies, e.g., HP and Apple?

-What impact have globalization and technology had on manufacturing and sourcing

**Reading #4b** WSJ 04/2015 "Apple Watch: Faulty Taptic Engine Slows Rollout"

In the context of this article, discuss the risks/benefits of single-sourcing versus having redundancy in your supply chain.

Why did Apple tell some of its watch suppliers to slow production until June?

What are the advantages of having online orders for Apple watches versus selling the watches to customers at Apple Stores?

Reading #5a WSJ 08/2009 "Latest Starbucks Buzzword: Lean Japanese Techniques"

Describe how lean concepts were used in the retail setting, as represented by Starbucks. Do you agree with the statement that benefits won't be seen until demand increases?

What role do front-line employees play in adoption of lean techniques?

Why were some baristas resistant to "lean"? How can barista adoption be increased?

**Reading #5b** Mckinsey Quarterly 02/2014 "When Toyota met e-commerce: Lean at Amazon"

-What is "autonomation"?

-How were the scanners fixed?

-What is kaizen?

-What is an andon cord?

-What in your opinion is essential to successfully implement lean?

**Reading #6** WSJ 08/2011 "Fun for the Whole Family: The Long Wait in Line"

What are service organizations doing to improve the customer wait experience?

In general, are these efforts reducing the actual amount of time a customer waits for a service?

Why is it important to actively manage a customer's perceived waiting time?

**Reading #7** WSJ 08/2006 "Toyota May Delay New Models to Address Rising Quality Issues"

NYT 09/2015 "As VW Pushed to be #1, Ambitions Fueled Scandal"

WSJ 09/2015 "VW Lost Its Moral Compass"

What are the quality management issues at these car companies?

What are some of the suspected causes of Toyota's recall crises? What drove VW's decision-making leading up to the scandal? In both cases, what is the impact on brand image?

Additional required readings may be added during the semester. Supplemental readings are also provided for some topics. These are not required, but are recommended for the interested student and provide an additional opportunity for making contributions to class discussion for participation points.

## **BUSI 403 Excel Refresher Session:**

An Excel Refresher session has been scheduled to provide students with a review of the Excel skills needed to complete assigned homework sets quickly and efficiently.

Homework sets will contain problems that require the use of Excel. Our TA will be available in his office on the 5<sup>th</sup> floor of McColl or virtually, via Zoom, at scheduled times (see course website for details) to answer questions and assist you in using Excel tools for completing those specific homework problems. The topics for the refresher session and special office hours are listed below:

<u>DATE</u> <u>TOPICS</u>

TBD Statistics/Excel Refresher Session

Expected values, means and standard deviations

Cutting and Pasting Formulas in Excel

Rounding-Off Numbers to Desired Decimal Places

Using Average Functions

Regression Refresher

Plotting Multiple Data Series on Charts and Graphs Printing out Spreadsheets

- Attendance at this session is **purely voluntary**. This session is offered for those students who feel they need to review Excel skills in order to complete their homework.
- The presentation will focus only on Excel skills, not the homework sets. Any questions regarding the homework should be referred to your course instructor.
- Students in attendance aren't expected to sit through the entire session if they feel their questions were answered early in the session.
- Relevant Power Point slides will be placed on the course website after the session.

The TA will also be available to answer Excel-related questions specific to the listed homework sets. See the course schedule for date/time/location.

- HW Set C: Data sorts for ABC analysis and computing z-values for safety stock
- HW Set D: Setting up aggregate planning worksheets in Excel
- HW Set F: Preparing Statistical Control Charts in Excel

# UNC Kenan-Flagler Syllabus Wellness Statement:

As a student, you may experience a range of challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities.

Recognizing the signs and symptoms of mental or emotional health concerns can help you or others to seek care that can help. Here are some signs that may be reasons for concern:

- 1. Feeling hopelessness, worthlessness, depressed, angry or guilt
- 2. Withdrawal from friends, family, and activities that used to be fun
- 3. Changes in eating or sleeping patterns

- 4. Feeling tired or exhausted all of the time
- 5. Trouble concentrating, thinking, remembering or making decisions
- 6. Restlessness, irritability, agitation or anxious movements or behaviors
- 7. Neglect of personal care
- 8. Reckless or impulsive behaviors (e.g., drinking or using drugs excessively or being unsafe in other ways)
- 9. Persistent physical symptoms (e.g., headaches, digestive problems or chronic pain) that do not respond to routine treatment
- 10. Thoughts about death or suicide\*

Do your best to take care of yourself and begin (or maintain) a healthy lifestyle this semester by eating well, exercising, maintaining a healthy and responsible relationship with alcohol and prescribed drugs, getting enough sleep and taking some time to relax. This will help you achieve your personal and academic goals and cope with stress effectively.

All of us benefit from support during times of struggle. There are many helpful resources available on campus and an important part of your academic experience is learning how to ask for help. Asking for support sooner rather than later can be the key to bouncing back and thriving through the remainder of the academic year.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. Please reach out to one of the following resources for support:

#### **UNC Resources**

#### Felix Morton IV, Wellness Specialist / Coach

UNC Kenan-Flagler Office: McColl 3124

Email: felix morton@kenan-flagler.unc.edu, wellness@kenan-flagler.unc.edu

Phone: 919-962-9315

Coaching Sign-Up: <a href="https://unckf.titaniumhwc.com/">https://unckf.titaniumhwc.com/</a>

Online Wellness Resources:

Kenan-Flagler Online Wellness Toolkit

#### Counseling and Psychological Services (CAPS)

Location: James A. Taylor Building, 320 Emergency Room Dr.

Office Hours Phone: 919-966-3658 (8:00a – 5:00p)

After Hours Phone: 919-966-2281

Email: caps@unc.edu

#### **National Crisis Hotlines**

National Suicide Prevention Lifeline: 1-800-273-8255

Crisis Text Line: Text 741741

#### **Title IX Resources**

Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Reports can be made online to the EOC at <a href="https://eoc.unc.edu/report-an-incident/">https://eoc.unc.edu/report-an-incident/</a>. Please contact the University's Title IX Coordinator (Elizabeth Hall, interim – <a href="mailto:titleixcoordinator@unc.edu">titleixcoordinator@unc.edu</a>), Report and Response Coordinators in the Equal Opportunity and Compliance Office (<a href="mailto:reportandresponse@unc.edu">reportandresponse@unc.edu</a>), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators (<a href="mailto:gvsc@unc.edu">gvsc@unc.edu</a>; confidential) to discuss your specific needs. Additional resources are available at safe.unc.edu.

<sup>\*</sup> If you or someone you know is experiencing thoughts about death or suicide, please reach out for assistance immediately. Please contact both CAPS and Angie. If you or the person you are concerned for is uncomfortable with speaking to someone in CAPS or with Angie, please reach out to one of the national crisis hotlines listed above immediately.