

## BUSML 4386 Logistics & Supply Chain Technology Syllabus

Sem: Spring 2024

**Class Day/Time:** MoWe  
5100: 2:45PM – 3:45PM

**Room:** Gerlach Hall 375

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**Instructor:** Dr. Annibal Sodero, Ph.D

**e-mail:** SODERO.1@OSU.EDU

**Office Hours:** MoWe 4:00PM – 5:00PM

**Office:** Fisher Hall 548

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**Pre-Requirements:** 3380, and AcctMIS 2200 and 2300, and BusOBA 2320 and 2321; and BusMHR 2291 or 2292.

**Course Format:** In-class Lecture

### Course Description:

This course presents a synthesis of principles in logistics and supply chain technology, emphasizing how technologies emerge and are used for logistics and supply chain management. The focus of the course is on principles relating to standardization, assimilation of technology, integration and interdependencies among disparate technologies, and the use of technology for decision-making. A major goal of this course is to expose students to situations that emulate what they will be facing when using technology in practice.

**Learning course outcomes:** By the end of the course, you will:

- Understand the processes that lead to the **emergence** of new technology for LSCM
- Understand **the stages of assimilation** of technology for LSCM
- Understand interdependencies among and integration of disparate technologies for LSCM
- Understand how technologies for LSCM impact decision-making
- Have been exposed to **usual situations that occur in practice** when dealing with technology for LSCM

### Required Texts/Materials:

✓ **There are no textbooks.**

✓ **Simulations:**

**Publisher:** Harvard Business Publishing

**Link:** <https://hbsp.harvard.edu/import/1129065>

**What's included in the coursepack:**

- Data Analytics Simulation: Strategic Decision Making (Required)
- Managing with Analytics at Procter & Gamble (Recommended)

**Coursepack cost:** \$16.25 for 1 required item; \$4.95 for 1 recommended item

**How to Register:**

1. Create an account by navigating to <https://hbsp.harvard.edu/student/> and clicking "Register"  
Note: Choose the option "Student".
2. Follow the instructions on your screen to finish your registration.
3. The deadline to register is Friday on week 4.

**Publisher:** MercuryGate

**What's included in the coursepack:**

- MercuryGate University training platform

**Cost:** \$0

**How to Register:**

1. Follow the instructions provided in the MercuryGate welcome email.
  2. If you have not received the MercuryGate welcome email, you must contact me no later than the end of the first class on Week 1.
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## Evaluation Criteria:

Graded Components	% of Total	Type
<b>Class attendance &amp; participation</b>	<b>10%</b>	<b>N ↑</b>
<b>Course Project</b>	<b>40%</b>	<b>C ###</b>
<i>Business Process Mapping</i>	10%	
<i>Oral Presentation</i>	30%	
<b>Simulations</b>	<b>30%</b>	<b>O 🗨️</b>
<i>Mercury Gate TMS Series 1-7</i> <i>(1-2 not graded; 3-7 graded)</i>	20%	
<i>Strategic Decision-Making Game (dry</i> <i>run + pre-game quiz + in-class activity)</i>	10%	
<b>Examination</b>	<b>20%</b>	<b>N ↑</b>

### Requirements for each form of graded component.

Failing to follow these will represent academic misconduct. See below.

**Independent Work [N ↑]:** Strictly non-collaborative, original individual work. You may discuss this assignment with your instructor only. Discussions with other individuals, either in person or electronically, are strictly prohibited.

**Collaboration Required [C ###]:** An explicit expectation for collaboration among students either in class or outside of class (i.e. group work).

**Collaboration Optional [O 🗨️]:** Students are permitted, but not required, to discuss the assignment or ideas with each other. However, all submitted work must be one's original and individual creation.

## Graded Component Details

**Examination:** There will be one multiple-choice examination in the week of examinations. It will be “open book” and “open notes” and will comprise all course material, including, but not limited to, simulation games, course project, readings, videos, cases, and class discussion. In order to succeed in the examination, you must remain engaged in course activities and take notes as you see fit. You will have 80 minutes to answer all 20 questions. The exam will be available online on Carmen **from noon on April 25<sup>th</sup>, 2024 through 11:59pm on April 29<sup>th</sup>, 2024.**

To assist in your preparation, a pre-exam review/study guide sheet will be distributed to the class in the review session prior to the examination; this sheet will be handed out in class and posted on Carmen for downloading.

**Class attendance and participation:** Active participation in class is highly encouraged. Class participation grades will be based on your contributions during class discussions and your participation in in-class exercises and assignments (the instructor may collect in-class exercises and assignments for grading). Any student who fails to attend without giving prior notification to the instructor will be dis-enrolled after the third instructional day of the term, the first Friday of the term, or the second scheduled class meeting of the course, whichever occurs first. *It is expected that all students attend all classes. Class attendance, thus, merely is a prerequisite to class participation. I will report 3 and more class absences to the University's registrar's office.*

**Simulation Games:** A total of two simulations will be used during the session. It is your responsibility to be able to complete all assignments according to the schedule provided in the syllabus and in the corresponding Carmen Canvas page.

- The **Mercury Gate TMS simulation** will be performed outside of the classroom. You will get 4 points for each graded module that you complete by its corresponding deadline. You will get zero points for each graded module that you do not complete by its corresponding deadline.
- The **Strategic Decision-Making Game** simulation will be played in the classroom. You will get 10 points if you accomplish all following three goals:
  - correctly answer the corresponding quiz before playing the simulation,
  - play a dry-run (not graded) before the required in-class run, and
  - complete the simulation in the classroom.

**Project Details:** One course project will be assigned during the semester. Students will work in teams of 4. Each team will submit the business process mapping report using the provided template and according to the project description available on Carmen. Each team will also present their findings in the classroom. The presentation deck is due at noon (12pm) the day before the first day of presentations for all teams. You have 10 minutes in total to present, including preparation, loading the presentation, and Q&A. Therefore, use your time wisely. *Participation in the team will be peer-reviewed for both activities (business process mapping and final presentation) and grades will be adjusted accordingly.*

## Grading Scale

Letter	A	A-	B+	B	B-	C+	C	C-	D+	D	E
(Points)	(4.0)	(3.7)	(3.3)	(3.0)	(2.7)	(2.3)	(2.0)	(1.7)	(1.3)	(1.0)	(0.0)
Range	100% - 93%	93% - 90%	90% - 87%	87% - 83%	83% - 80%	80% - 77%	77% - 73%	73% - 70%	70% - 67%	67% - 60%	60% - 0%

To prevent grade inflation, Undergraduate Program Policy requires that no business elective or Capstone course exceeds a 3.6 grade point average. As such, grading must be based on a relative rather than absolute standard. Scaling is achieved using the average grade across all students, and grades will be set such that this average is at or below the 3.6 upper limit. However, the final distribution of grades could include any grade throughout the A-E range, depending upon student performance.

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### Extended Course Description:

This course will progress very quickly. It is advisable to stay up with the required reading and to be prepared for each and every class session. Students are expected to present their viewpoints in the classroom and actively participate in discussions with other class participants throughout the semester. Students will be required to examine a variety of issues and situations. In-class exercises are designed to encourage students to work on and integrate class concepts throughout the semester. Therefore, students are expected to put in ***significant effort both outside and inside the classroom*** working on course assignments. Finally, students will have the opportunity to work in teams and analyze a managerial problem encompassing logistics activities across a supply chain as part of a case study. Teams will present their observations and analysis with the rest of the class and learn from each other's experiences and opinions.

**Course Communication:** Carmen will be used for all announcements and messages to students. Please ensure that you receive messages sent through Carmen's email system.

**Participating in online activities:** Research shows regular participation is one of the highest predictors of success. You are expected to log in to the course in Carmen every day. It is your responsibility to read all course announcements. During most weeks you will probably log in many times to the course in Carmen. If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.

**Preferred contact method:** If you have a question, please contact me first through my Ohio State email address. I will reply to emails within **24 business day hours on days when class is in session at the university**.

**Class announcements:** I will send all important class-wide messages through the Announcements tool in CarmenCanvas. Please check [your notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to ensure you receive these messages. It is your responsibility to read course announcements.

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## **Additional Course Policies**

### **Use of AI:**

Use of artificial intelligence (AI)-powered programs, including but not limited to ChatGPT, for course assignments must be first discussed and permitted by the faculty instructor. The scope of use may range from not permitted (with exception of AI-powered search engines such as Google, Bing, etc.) to a broader spectrum of allowed applications. When AI-powered programs are permitted, and used by students, the scope of use and content must be specified and referenced by students accordingly. Students are expected to be aware of the shortcomings of use of AI-powered programs, including risk of academic misconduct (e.g., plagiarism; etc.).

### **Testing Policy:**

There are no make-ups for quizzes. Missed quizzes will be recorded as a "0". Missed exams can only be made-up in extreme cases (e.g., death of family member, personal hospitalization, etc.) with proper documentation (e.g., a physician's note, ER paperwork, obituary, etc.). Each decision of potentially allowing a make-up exam is made by the instructor on a case-by-case basis. Additionally, you **MUST** contact the instructor ([sodero.1@osu.edu](mailto:sodero.1@osu.edu)) as soon as you know of a potential problem or conflict with an exam date. Alternative methods (e.g., oral exam, essay) of testing may be used for make-up exams. If you are experiencing an extreme situation or emergency, please attempt to notify the instructor by email ([sodero.1@osu.edu](mailto:sodero.1@osu.edu)) ASAP.

### **Technology Policy:**

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at [ocio.osu.edu/help/hours](https://ocio.osu.edu/help/hours), and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** [ocio.osu.edu/help](https://ocio.osu.edu/help)
- **Phone:** 614-688-4357(HELP)
- **Email:** [servicedesk@osu.edu](mailto:servicedesk@osu.edu)
- **TDD:** 614-688-8743

### **Baseline technical skills for online courses**

- Basic computer, Word, Excel, PowerPoint
- Navigating Carmen: for questions about specific functionality, see the [Canvas Student Guide](#).

### **Required Technology skills specific to this course**

- [CarmenZoom virtual meetings](#)
- [Recording a slide presentation with audio narration](#)
- [Recording, editing, and uploading video](#)

### **Required equipment**

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed and tested
- Microphone: built-in laptop or tablet mic or external microphone
- Other: a mobile device (smartphone or tablet) or landline to use for BuckeyePass authentication

**Required software:** [Microsoft Office 365](#): Free Microsoft Office 365 ProPlus through Microsoft's Student Advantage program. Full instructions for downloading and installation can be found at [go.osu.edu/office365help](https://go.osu.edu/office365help).

**Carmen access:** You will need to use [BuckeyePass](#) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](#) help article for step-by-step instructions.
- Download the [Duo Mobile application](#) to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357 (HELP) and IT support staff will work out a solution with you.

### **Disability Services:**

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's [request process](#), managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. **SLDS contact information:** [slds@osu.edu](mailto:slds@osu.edu); 614-292-3307; [slds.osu.edu](http://slds.osu.edu); 098 Baker Hall, 113 W. 12<sup>th</sup> Avenue

### **Mental Health:**

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. No matter where you are engaged in distance learning, The Ohio State University's Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, [on-demand mental health resources](http://go.osu.edu/ccsondemand) ([go.osu.edu/ccsondemand](http://go.osu.edu/ccsondemand)) are available. You can reach an on-call counselor when CCS is closed at [614-292-5766](tel:614-292-5766). **24-hour emergency help** is available through the [National Suicide Prevention Lifeline website](http://suicidepreventionlifeline.org) ([suicidepreventionlifeline.org](http://suicidepreventionlifeline.org)) or by calling [1-800-273-8255\(TALK\)](tel:1-800-273-8255). [The Ohio State Wellness app](http://go.osu.edu/wellnessapp) ([go.osu.edu/wellnessapp](http://go.osu.edu/wellnessapp)) is also a great resource.

### **Harassment, Discrimination, & Sexual Misconduct Free Environment:**

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Office of Institutional Equity:

1. Online reporting form at [equity.osu.edu](http://equity.osu.edu),
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or email [equity@osu.edu](mailto:equity@osu.edu)

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

### **Copyright for Instructional Materials:**

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Material provided by the instructor may not be re-posted anywhere without the explicit permission of instructors. See University Copyright Policy.

### **Academic Conduct:**

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's Code of Student Conduct, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and

guidelines established in the University's Code of Student Conduct (<https://trustees.osu.edu/bylaws-and-rules/code>), *this syllabus, instructions posted in Carmen, and instructions given in class/lectures, including any sharing, posting, or distribution of any assignment, assessment activity, or solution via any method* may constitute Academic Misconduct (<https://oaa.osu.edu/academic-integrity-and-misconduct>)

The Ohio State University's Code of Student Conduct (Section 3335-23-04) defines academic misconduct as: Any activity that tends to compromise the academic integrity of the University, or subvert the educational process. Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's Code of Student Conduct is never considered an excuse for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University. *If you have any concerns or questions about the above policy or what constitutes academic misconduct in this course, please contact me before taking individual action.*

Other sources of information on academic misconduct (integrity) to which you can refer include:

- [Committee on Academic Misconduct](https://go.osu.edu/coam) (go.osu.edu/coam)
- [Ten Suggestions for Preserving Academic Integrity](https://go.osu.edu/ten-suggestions) (go.osu.edu/ten-suggestions)
- [Eight Cardinal Rules of Academic Integrity](https://go.osu.edu/cardinal-rules) (go.osu.edu/cardinal-rules)

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**University Policies, Services  
and Resources**  
([go.osu.edu/UPolicies](https://go.osu.edu/UPolicies))



Fisher Undergraduate  
Handbook and QuickLinks  
([www.bsalinks.com](http://www.bsalinks.com))



Fisher Navigator  
Resource Portal  
([www.nav-1.com](http://www.nav-1.com))



## Course Schedule

Week	Date	Course Content	Course Activity and Graded Components	Type	Assessment Format
1	Wed 02/28	Introduction to course Introduction to MercuryGate TMS assignment Introduction to course project			
2	Mon 03/04	Logistics & SCM Technology			
	Wed 03/06	Integrated business processes and workflows Assimilation of technology			
	Mon 03/11 Wed 03/13	SPRING BREAK			
3	Mon 03/18	OMS, TMS, WMS B2C e-commerce and fulfillment + FBA			
	Wed 03/20	Traceability and visibility Diffusion of innovations RFID and barcoding Blockchain	MercuryGate TMS Series 1/2 (due before class meets)	N ↑	Not graded
4	Mon 03/25	Interorganizational systems Standards EDI VMI and CPFR Business-to-business / e-procurement systems	MercuryGate TMS Series 3 (due before class meets)	N ↑	Completion
	Wed 03/27	Platforms and electronic marketplaces Dynamic warehousing Crowdsourced delivery Carrier communities e-marketplaces	MercuryGate TMS Series 4 (due before class meets)	N ↑	Completion
5	Mon 04/01	Coaching session (in class)	Course Project: Business process mapping (due noon the day before class meets – Teams 1-5)	C 🚫	Carmen
	Wed 04/03	Coaching session (in class)	MercuryGate TMS Series 5 (due before class meets) Course Project: Business process mapping (due noon the day before class meets – Teams 6-10)	N ↑ C 🚫	Completion
6	Mon 04/08	Decision-making	Quiz: Managing with Analytics at Procter & Gamble (due before class meets) Dry run (due before class meets) Data analytics simulation (in class)	N ↑ N ↑ N ↑	Carmen HBP HBP
	Wed 04/10	Decision-making Business Intelligence Artificial Intelligence and Machine Learning Big Data and Predictive Analytics	MercuryGate TMS Series 6 (due before class meets)	N ↑	
7	Mon 04/15	Contemporary/ emerging issues Internet of Things (IoT) Cyber-security Cold chain AGVs, Robotics Drones, self-driven vehicles	Data analytics simulation debriefing		
	Wed 04/17	Course Project Presentations (in class)	MercuryGate TMS Series 7 (due before class meets) Presentations (due noon the day before class meets) Course Project: Oral Presentation (in class)	N ↑ C 🚫 C 🚫	Completion Carmen Presential
8	Mon 04/22	Course Project Presentations (in class)	Course Project: Oral Presentation (in class)	C 🚫	Presential