



Carleton
UNIVERSITY

SPROTT
SCHOOL OF BUSINESS

**Carleton University
BUSI - 3305 LOGISTICS AND TRANSPORTATION
FALL - 2020**

Instructor:	Aaron L. Nsakanda, Ph.D., Associate Professor, Supply Chain Management email: aaron.nsakanda@carleton.ca
Modality	Hybrid (asynchronous and synchronous) – see below
Timetable* (for synchronous sessions):	Tuesdays, 11:35am-1:00pm
Online office hours (via bigbluebutton)	Fridays: 12pm-1:30pm or by appointment)

*all times in this course outline are Ottawa time (eastern standard time)

Modality details: Hybrid (asynchronous and synchronous)

- Synchronous means that the professor and the student interact with each other in real time through live Zoom sessions. Every week, we will have a synchronous class for each section lasting up to 75 minutes (with few exceptions that will last longer) as per the timetable above. The rest of the course materials will be delivered asynchronously.
- Asynchronous delivery does not take place simultaneously. For this course, the material including recordings of the synchronous sessions, additional lecture videos, PowerPoint slides, and other materials will be posted on cuLearn.

UNDERGRADUATE CALENDAR DESCRIPTION

Overview of logistics and transportation concepts, their roles in creating overall supply chain value. Strategic management and integration on the global basis of core activities, functions, and processes; network design and planning, performance metrics, recent trends in logistics and transportation.

A. COURSE DESCRIPTION

Logistics and transportation operations involve getting the right good or service, in the right way, in the right quantity and right quality, in the right place at the right time, for the right customer at the right cost. The growing demand for a broad range of goods and services, the escalation in global trade, the increasing regulation, cost pressures and the worldwide competition are creating the need for greater operational effectiveness and efficiencies for logistics and transportation operations in both services and manufacturing organizations. This course is designed to convey the principles, techniques and methods employed in order to be effective in managing logistics and transportation operations domestically or internationally. Topics explored include strategic management

and integration on the global basis of core logistics and transportation activities, functions, and processes; network design and planning; performance metrics; and recent trends in logistics and transportation. The material is organized to enable both participants to appreciate the value offered by a variety of management practices and concepts as means for transforming logistics and transportation operations in order to deliver better results. The format of the course consists of a mixture of lectures exposing the relevant materials, case solving and discussions, presentations to peers, and whenever possible the use of guest speakers and field trips.

B. COURSE LEARNING OBJECTIVES

Upon completion of this course, students should be able to:

- (a) Develop an understanding of the strategic importance of logistics and transportation in the overall process of creating supply chain value, the formation of business strategy and the execution of successful operations.
- (b) Develop an understanding of activities, functions, and processes that comprise logistics and transportation; their interrelationship and how they affect customer service, corporate performance and competitive advantage.
- (c) Develop an understanding of the role and importance of various key logistics and transportation intermediaries that facilitate global trade.

C. COURSE PREREQUISITES

Third year standing and BUSI 2301 with a grade of C or higher, and STAT2606 with a grade of C- or higher. The School of Business enforces all prerequisites.

D. COURSE MATERIAL

1. Required textbook

There is not a sole textbook for this course. Chapters from the following books will instead be used as references, given their broader fit with the course objectives:

Authors and title	Referenced chapters
(a) Murphy, P. R., Wood, D. F. (2018): Contemporary Logistics, 12th edition, Prentice Hall. (Hereafter [MW])	1*, 4, 10, 11, 12, and 14
(b) Coyle, J. J., Novack, R.A., Gibson, B. J., Bardi, E. J. (2019): Transportation - A Supply Chain Perspective, 9th edition, South-Western. (Hereafter [CNGB])	10, 11, and 12
(c) Chopra, S. (2017): Supply Chain Management - Strategy, Planning, and Operation, 7th edition, Pearson, 514 pages. (Hereafter, [CM])	4, 14*
(d) Kasingam, R.G. [1998]: Logistics and Transportation, Kluwer Academic Publishers, 297 pages. (Hereafter, [KR])	9*

Chapters with (*) will be made available electronically through the reserve library (ARES). A small number of reading materials (see CULearn for more details) will need to be purchased from Harvard Business Publishing.

2. Class notes and readings

The instructor's lecture notes will be available for download on the course website (see CuLearn).

D. COURSE EVALUATION*

The course evaluation will be based on the following four activities:

ACTIVITY	WEIGHT
1. Case study managerial report: analysis and presentation	20%
2. Lecture quizzes	15%
3. Logistics and Transportation in practice: research report and presentation	25%
4. Final examination (opened notes and books)	40%
TOTAL	100%

*Final grades are subjected to the Dean's approval.

1. *Case study managerial analysis and presentation (20%)*

There will be a case write-up and presentation of quality suitable for consulting practice. Each write-up will be done in groups (up to four) and should not exceed 15 typed pages (not including appendices, 1.5 line spacing, 12 points - Times New Roman font). It must include (a) a cover letter, (b) an executive summary consisting of the more important results, conclusions, and recommendations; and (c) the main body consisting of answers to the assigned questions, assumptions and analyses that led to these answers. The managerial report will be handed in on the due date at the beginning of each class. An initial twenty (20) percentage points penalty applies to a late assignment and an additional ten (10) percentage points per day thereafter. Students are advised that managerial reports will not be returned back to them after being marked. However, they will be available for consultation during the instructor's online office period. Be sure to keep a copy for yourself. The time limit for a revision request is 1 week after the marks are communicated. Although discussions between participants are encouraged, no collaboration is allowed between groups.

2. *Online Lectures quizzes (15%)*

There will be a total of 10 quizzes based on the lecture videos. Each lecture has several questions and your "lecture quizzes" grade will depend on the number of questions you get right in the entire quarter. When calculating your final "lecture quizzes" grade (15%), you will be allowed to miss or get wrong 10 percent of the questions. The purpose of these quizzes is to keep up to date on the lectures to absorb better the course materials. The questions are typically very easy, and their objective is simply to make sure you are following the lecture as if you were on campus and to ensure that students have a good understanding of the course materials. The quiz will consist of multiple-choice questions, true or false, and fill-in blank questions. This is the process we will follow (see the summary of deliverables for specific dates):

- At the beginning of every week, the asynchronous lecture videos of that week will be posted on CuLearn on Monday at 12pm at the latest. Any synchronous lecture video of that week will be posted on Tuesdays at 1155pm at the latest.
- Students have up to Monday at 1155pm of the following week to watch the lecture videos (asynchronous and synchronous) and to respond to the online quiz (see the summary of deliverables for specific dates).

- After Monday 1155pm, students will no longer have access to the online quiz of the previous week and will lose those points. Hence, no make-up is allowed.

Discussions between students on the content of the lecture videos are encouraged, but the quizzes must be done individually.

3. Transportation and Logistics in practice: research report and presentation (25%)

There will be a written report and presentation of students in groups (up to four) on either (a) a “real” company logistics systems and operations or (b) a practical transportation and logistics topic/problem that builds on/complements the knowledge accumulated in the course. Each group must submit a one-page proposal by e-mail to the instructor by Friday, October 9, 2020. It should include the names of the team members, the selected organization or topic/problem, and the action plan moving forward. The write-up should be precise and to the point not exceeding 25 typed pages (not including appendices, 1.5 line spacing, 12 points - Times New Roman font). The report on a real company logistics systems and operations should include at least the following:

- Background of the organization involved (e.g., how did it get started, what is the primary business, what divisions or subsidiaries makeup the company, why did you select the company, logistics organization within the firm, geographic scope of operations, revenues, employees, etc.).
- Warehousing (facilities and their role/functions, location and size, network structure, ownership arrangement, design and operations, material handling types, etc.)
- Transportation (modes, mix, network structure, ownership arrangement, management, etc.)
- Company’s logistics strengths, weaknesses and challenges.

The report on a practical transportation and logistics topic/problem should outline, among others, the statement and the importance of the topic/problem, the options/alternatives are available to the practitioners, the strengths and weaknesses of the various options, the practices of various organizations to respond to the challenges arising from the various options.

4. Examination (40%)

The online final exam will be opened book, opened notes. This exam will be comprehensive (i.e., will cover all course materials) and questions will come from readings, case studies, in-class exercises, lecture notes. It may consist of short-answer questions, essay questions, mini-case analysis, or problems to solve. The exam will have a set start and end time on a scheduled date (fixed exam). University will establish and announce the date for the final exam. No make-up will be given for missing the final exam, except for documented and acceptable emergencies (as defined by university standard). Students are advised that exam copies will not be returned to them after being marked. They will be available for consultation only during the instructor’s online office hours.

E. COMMUNICATIONS

In the “Forums” section of CuLearn, you will find a topic titled “Ask Me Anything.” This is the best place to ask me questions related to the course. If you have a question that may apply to other students as well, please post them here so that others can benefit from the answer.

If you have a question of a personal nature or related to your own coursework, I can be contacted by email or during my virtual office hours.

For any email sent to me, it is important to use the structure outlined in the template below:

- The subject of the email must begin with **3305 - topic - group (if related)**
- The first line in the body of the email must contain your first name, last name, your student number

 Send	To... Aaron Nsakanda <aaron.nsakanda@carleton.ca>;
	Cc... [empty box]
	Subject BUSI 3305 - topic - my group number
First name, last name, CUID Dear Professor Nsakanda:	

F. CONDUCT

Professional conduct is built upon the idea of mutual respect. Such conduct entails (but is not necessarily limited to):

- **Attending the class.**
Each class benefits from the attendance and participation of all participants. Class attendance is mandatory. The participation grade will be affected by absences. If any circumstances prevent attendance to the class, the participant is responsible for all materials discussed, handouts distributed, assignments covered, and announcements made.
- **Arriving on time.**
Late arrivals are disruptive and show disrespect to those who are on time. Late arrivals are not allowed.
- **Minimizing disruptions.**
Participants are not allowed to leave and re-enter the class. All cell phones and electronic communication devices must be turned off during class. If an emergency situation requires keeping the cell phone turned on, it must be set in the silent mode and it is advised that the instructor be informed prior to the class starting. Participants should also avoid engaging in side conversations after class has begun.
- **Focusing on the class.**
Participants are not allowed to use laptops or hand-held devices for other tasks than notes taking while in class. Activities such as net surfing, and answering email are very disruptive both to neighbors and to the entire class.
- **Being prepared for class.**
Participants must be ready to discuss any assigned readings and to answer any assigned questions.
- **Respect.**
Participants should act respectfully toward all class participants.

G. TENTATIVE SCHEDULE*

Week (Date)	Topic(s) & Delivery mode (Asynchronous vs Synchronous)		Lecture quiz (due date)
	Asynchronous	Synchronous (via zoom)	
1 (1/09)	no class		
2 (8/09)			
3 (15/09)	<p>Logistics - What and Why?</p> <ul style="list-style-type: none"> ○ Scope of logistics ○ Economic impacts of logistics ○ Logistical relationship within the firm ○ Organizing logistics within the firm ○ Professional logistic organizations <p>Readings:</p> <ul style="list-style-type: none"> ○ [MW]: Chapter 1** ○ [MW]: Chapter 4 (pp 56-60) 	<ul style="list-style-type: none"> ○ Course introduction and overview ○ Case discussion: Pete's (1 page available on CuLearn) 	21/9
4 (22/09)	<ul style="list-style-type: none"> ○ Case study and analysis methodology <p>Readings:</p> <ul style="list-style-type: none"> ○ Case individual preparation (see CuLearn) ○ Case individual presentation (see CuLearn) ○ Dollar tree logistics case study*** (HBC # UV1418, 17 pages, available for purchase from Harvard Business Publishing) 	<ul style="list-style-type: none"> ○ Logistics and transportation in practice: Dollar tree case analysis 	28/9
5 (29/09)	<p>Warehousing - design and management</p> <ul style="list-style-type: none"> ○ Warehousing facilities value adding role and functionality ○ Warehousing network designing options ○ Warehousing tradeoffs ○ Selecting a warehousing network design ○ Warehousing ownership arrangements ○ Warehousing operations ○ Warehousing management systems <p>Readings:</p> <ul style="list-style-type: none"> ○ [MW]: Chapter 10 ○ [CM]: Chapter 4 [pp 68-86] 	<ul style="list-style-type: none"> ○ Warehousing network designing options (in-class discussion) 	5/10
6 (6/10)	<p>Packaging and material handling</p> <ul style="list-style-type: none"> ○ Fundamentals of packaging and material handling ○ Material handling equipment <p>Readings: [MW] - Chapter 11</p>	<ul style="list-style-type: none"> ○ Logistics for DARK - integrated logistics case study (available on CuLearn) 	12/10

Date	Topic(s) & Delivery mode (Asynchronous vs Synchronous)		Lecture quiz (due date)
	Asynchronous	Synchronous (via zoom)	
7 (13/10)	Transportation – Fundamentals <ul style="list-style-type: none"> ○ Role of transportation and challenges in carrying this role ○ Transportation in Canada's economy (Canadian industry profile) ○ Modes of transportation and their performance 	<ul style="list-style-type: none"> ○ Modal capabilities (in-class exercise) ○ CD case management report: in-class introduction (6 pages, available for download on CULearn) 	19/10
	Readings: <ul style="list-style-type: none"> ○ [MW]: Chapter 12 ○ Note on the Canadian transportation industry*** (HBN #906D03, available for purchase from Harvard Business Publishing) 		
8 (20/10)	Transportation – Fundamentals (cont'd) <ul style="list-style-type: none"> ○ Trade-offs in Transportation design ○ Tailored transportation 	<ul style="list-style-type: none"> ○ Transportation network design options (in-class discussion) 	2/11
	Readings: <ul style="list-style-type: none"> ○ [CM]: Chapter 14** 		
9 (27/10)	Reading week (no class)		
10 (3/11)	Managing logistics internationally - transportation planning <ul style="list-style-type: none"> ○ Overview of global transportation ○ Export preparation activities ○ Transportation planning 	<ul style="list-style-type: none"> ○ Bolloré Logistics Canada and the use of incoterms case study (in-class discussion) 	9/11
	Readings <ul style="list-style-type: none"> ○ [CNGB]: Chapter 10 ○ [MW]: Chapter 14 ○ Bolloré Logistics Canada and the use of incoterms case study*** (17 pages, available for purchase from Harvard Business Publishing) 		
11 (10/11)		<ul style="list-style-type: none"> ○ CD case management write-up analysis and group presentation due 	
12 (17/11)	Managing logistics internationally - transportation execution <ul style="list-style-type: none"> ○ Overview of global freight flows ○ Global transportation providers ○ Port operations and customs clearance 	<ul style="list-style-type: none"> ○ Bolloré Logistics Canada and the use of incoterms case study (in-class activity) 	23/11
	Readings: <ul style="list-style-type: none"> ○ [CNGB]- Chapter 11 		
13 (24/11)	Managing logistics internationally <ul style="list-style-type: none"> ○ Outsourcing (Third-party logistics) 	<ul style="list-style-type: none"> ○ Design the distribution network for Michael's Hardware - in-class practice exercise (see CUlearn for download) 	30/11
	Readings <ul style="list-style-type: none"> ○ [CNGB]- Chapter 12 		

Date	Topic(s) & Delivery mode (Asynchronous vs Synchronous)		Lecture quiz (due date)
	Asynchronous	Synchronous (via zoom)	
14 (1/12)	Measuring Logistics performance metrics <ul style="list-style-type: none"> ○ Classification of logistics metrics ○ Issues in logistics metrics 	<ul style="list-style-type: none"> ○ Modal choice decisions - in-class practice exercise (see CULearn for download) 	7/12
	Readings: <ul style="list-style-type: none"> ○ Readings: [RK]- Chapter 9** ○ [MW]: Chapter 14 		
15 (8/12)	<ul style="list-style-type: none"> ○ Course wrap up 	<ul style="list-style-type: none"> ○ Logistics and transportation in practice: research report and online group presentation 	

*Every effort has been made to make the schedule as complete as possible, but there may be occasions where changes are required. The instructor will announce any deviations from the course outline in class.

** Chapters available for download through ARES.

*** Materials available for purchase from Harvard Business Publishing.

H. SUMMARY OF DELIVERABLES

DELIVERABLE	DUE DATE
Lecture quiz # 1 (covers contents of Week 3)	21/9
Lecture quiz # 2 (covers contents of Week 4)	28/9
Lecture quiz # 3 (covers contents of Week 5)	5/10
Lecture quiz # 4 (covers contents of Week 6)	12/10
Lecture quiz # 5 (covers contents of Week 7)	19/10
Lecture quiz # 6 (covers contents of Week 8)	2/11
Lecture quiz # 7 (covers contents of Week 10)	9/11
Lecture quiz # 8 (covers contents of Week 12)	23/11
Lecture quiz # 9 (covers contents of Week 13)	30/11
Lecture quiz # 10 (covers contents of Week 14)	7/12
Logistics and transportation in practice: research proposal	9/10
CD case managerial analysis: report & online group presentation	10/11
Logistics and transportation in practice: research report and online group presentation	8/12

I. IMPORTANT ADDITIONAL INFORMATION

- **Course Sharing Websites**

Student or professor materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).

- **Required calculator in BUSI course examinations**

If you are purchasing a calculator, we recommend any one of the following options: Texas Instruments BA II Plus (including Pro Model), Hewlett Packard HP 12C (including Platinum model), Staples Financial Calculator, Sharp EL-738C & Hewlett Packard HP 10bII.

- **Group work**

The Sprott School of Business encourages group assignments in the school for several reasons. They provide you with opportunities to develop and enhance interpersonal, communication, leadership, follower-ship and other group skills. Group assignments are also good for learning integrative skills for putting together a complex task. Your professor may assign one or more group tasks/assignments/projects in this course. Before embarking on a specific problem as a group, it is your responsibility to ensure that the problem is meant to be a group assignment and not an individual one.

In accordance with the Carleton University Undergraduate Calendar (p 34), the letter grades assigned in this course will have the following percentage equivalents:

A+ = 90-100	B+ = 77-79	C+ = 67-69	D+ = 57-59
A = 85-89	B = 73-76	C = 63-66	D = 53-56
A - = 80-84	B - = 70-72	C - = 60-62	D - = 50-52
F = Below 50	WDN = Withdrawn from the course		
DEF = Deferred			

- **Academic Regulations**

University rules regarding registration, withdrawal, appealing marks, and most anything else you might need to know can be found on the university's website, here:

<http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/>

- **Requests for Academic Accommodation**

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

Pregnancy obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website:

carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Religious obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website:

carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Academic Accommodations for Students with Disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. carleton.ca/pmc

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and is survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit:

carleton.ca/sexual-violence-support

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

For more information on academic accommodation, please contact the departmental administrator or visit: students.carleton.ca/course-outline

- Academic Integrity

Violations of academic integrity are a serious academic offence. Violations of academic integrity – presenting another's ideas, arguments, words or images as your own, using unauthorized material, misrepresentation, fabricating or misrepresenting research data, unauthorized co-operation or collaboration or completing work for another student – weaken the quality of the degree and will not be tolerated. Penalties may include expulsion; suspension from all studies at Carleton; suspension from full-time studies; a refusal of permission to continue or to register in a specific degree program; academic probation; and a grade of Failure in the course, amongst others. Students are expected to familiarize themselves with and follow the Carleton University Student Academic Integrity Policy which is available, along with resources for compliance a <https://carleton.ca/registrar/academic-integrity/>.

- Sprott Student Services

The Sprott student services office, located in 710 Dunton Tower, offers academic advising, study skills advising, and overall academic success support. If you're having a difficult time with this course or others, or just need some guidance on how to successfully complete your Sprott degree, please drop in* any weekday between 8:30am and 4:30pm. Our advisors are happy to discuss grades, course selection, tutoring, concentrations, and will ensure that you get connected with the resources you need to succeed! <http://sprott.carleton.ca/students/undergraduate/learning-support/>

* Note that the office is physically closed. However, e-drop in is available between 8:30-4:30 until social distancing requirements are updated by the Province

Be in the know with what's happening at Sprott: Follow @SprottStudents and find us on Facebook SprottStudents Sprott.

- **Centre for Student Academic Support**

The Centre for Student Academic Support (CSAS) is a centralized collection of learning support services designed to help students achieve their goals and improve their learning both inside and outside the classroom. CSAS offers academic assistance with course content, academic writing and skills development. Visit CSAS on the 4th floor of MacOdrum Library or online at: <http://carleton.ca/csa>.

- **Other Information**

- Students must always retain a hard copy of all work that is submitted.
- All final grades are subject to the Dean's approval.
- For us to respond to your emails, we need to see your full name, CU ID, and the email must be written from your valid CARLETON address. Therefore, it would be easier to respond to your inquiries if you would send all email from your Carleton account. If you do not have or have yet to activate this account, you may wish to do so by visiting <http://carleton.ca/ccs/students/>.

K. Undergraduate Academic Calendar (2020-2021)

Available at <http://calendar.carleton.ca/academicyear/>.