



Semester:
Spring 2020

Class Day/Time:
MWF 11:30a-12:25p (Section 3700)
MWF 12:40p-1:35p (Section 4172)

Room:
Schoenbaum Hall 215
Schoenbaum Hall 215

Instructor: Dr. Vince Castillo

E-mail: Castillo.230@osu.edu

Office Hours: MW 10-11a, by appointment

Office: Fisher Hall 532

Course Content Website: <https://u.osu.edu/castillo.230/4382-logistics-analytics/>
Password: brutus4382

Course Description:

This course introduces students to the tools necessary to understand, analyze, and make decisions regarding logistics operations. We will study analytical modeling techniques such as time series forecasting, optimization, heuristics, and simulation to understand how they are used to evaluate and solve common logistics and supply chain management problems. Specifically, we're going to study how analytical modeling can be used in forecasting, inventory management, vehicle routing, and network design problems, all of which have the ability to significantly impact the performance of the firm. By the end of the course, you should be familiar with common analytical modeling tools, how they're used, how to interpret their results, and perhaps most importantly, what these models don't tell you.

Required Texts/Materials:

There is no required textbook for this course, although there will be reading assignments sourced from the popular press. A link to all course materials, including the course schedule, lecture slides, in-class exercises, and readings, is posted on Carmen and provided above. You'll find in the schedule that some class sessions have "Suggested Preparatory Readings" listed. While I won't give quizzes on these and I may not even discuss them in class, they are provided for your benefit. I strongly encourage you to remain current on these readings as we progress through the semester. I've also provided "Supplemental Readings" for some sessions on the course website. These are also optional but they can enhance your understanding of the topic for that session.

Disclaimer: In the event that extenuating circumstances arise necessitating a change to the course schedule, policies, or other content, I will clearly communicate those changes by explaining them in class and posting an announcement to Carmen.

Evaluation Criteria:

Graded Components	% of Total	Type
Exams	60%	N ↑
Forecasting Case Study	15%	C 🚫
Network Design Case Study	20%	C 🚫
Reflection Journal	5%	N ↑

(See remaining pages for Details/Due dates)

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.

Academic Conduct:

If a student is suspected of, or reported to have committed, academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct (COAM). If you have questions about the above policy or what constitutes academic misconduct in this course, please contact me. See OSU Prohibited Conduct – [Section 3335-23-04\(A\)](#)

University Policies,
Services and Resources
(go.osu.edu/UPolicies)



Fisher Undergraduate
Handbook and QuickLinks
(www.bsalinks.com)



Fisher Navigator
Resource Portal
(www.nav-1.com)



Graded Component Details

Assignments should be submitted via Carmen. Grades will subsequently be posted on Carmen as soon as I finish with them (usually within a week). I will gladly review any grades I give during office hours. The following sections describe the areas in which students can earn points towards their final grade as well as the weights for each of those areas.

Exam Details (60% total; 20% each):

The three exams are closed-book and closed-notes. I will, however, provide you with a formula sheet (when relevant). While the second and third exams are not cumulative per se, there may be carry-over between exams in that the content we discuss early in the semester lays the foundation for understanding content discussed later in the semester. Unexcused absences from an exam will result in a zero for that exam. In the event extenuating circumstances arise that necessitate your absence from an exam, I ask that you notify me as soon as is reasonable to discuss the possibility of rescheduling. You should plan on providing justifying documentation of some sort if this situation arises. If I approve a request for special accommodations to take an exam, it is highly unlikely to match the one given during regularly scheduled class time.

Case Studies (35% total; 15% and 20% each):

This course has two case studies. I encourage you to work in groups of 2-3 teammates of your own choosing. The first case is a forecasting study, which I will introduce during the first module. You will need to submit a spreadsheet analysis along with a written summary of your results. The second case study on network design will be conducted after the third exam. This will be a lab-based case study where we use commercial-grade network design software ([AnyLogistix](#)). I will introduce the software on the first lab-day and you will have a number of “lab-days” to work on the case. The software will also be on the computers in the Mason Hall basement, however, since a Personal Learning Edition (PLE) of the software is freely available, you will be able to work on it at your own convenience.

Importantly, I will strive to make these case studies a more realistic experience. Think of me as your boss assigning you a problem to solve and your job is to analyze and recommend (a) course(s) of action. As such, I will provide “guidance” on completing the assignments, but I will not provide a “grading rubric”. The reason for this is simple and pragmatic – you don’t get “rubrics” in the real world, so continuing to offer them only stunts your growth. If a deliverable is of sub-par quality, I reserve the right to return it to your group and require it to be re-done until it is correct – just like I would in the real world. Anytime I return a case for corrections will result in a lower maximum attainable score for that group.

Reflection Journal (5% total):

I want to encourage you to learn about logistics analytics on your own and have some say in how you earn a portion of your grade. So, I have allocated 5% of your final grade to creating a “journal” of reflections relating to your learning throughout the course. You will have to write five journal entries throughout the semester, at your own pace, on topics of your choosing. Each entry should be at least 300 words and uploaded to Carmen as a docx file.

In these journal entries, you will be reflecting on an “event” of some sort. I use the term “event” very broadly in this sense but it refers to something on which you can write a reflection. One option is to watch a logistics-focused webinar online. Ideally, the webinar should be related to forecasting, optimization, simulation, (meta)heuristics, inventory management, vehicle routing, or network design. If you’re not certain if the webinar’s topic is okay to use, please ask me first. Webinar resources include [Supply Chain Digest](#), [Supply Chain Quarterly](#), [Logistics Management](#), [Supply Chain Management Review](#), and [APICS](#). In this case, your write-up should also include a link to the video.

Another option is to read and reflect on articles from the popular press. As previously mentioned, I will post “Supplemental Readings” throughout the semester that are interesting and relevant to the course. You may also pick one of these readings upon which to write a reflection. Yet another option is to attend a lecture at a [CSCMP Roundtable](#) event or some other organization that has to do with logistics and supply chain management (such events held by the [Columbus Region Logistics Council](#) or [The Logistics Association](#) here at tOSU). Note that the event calendars for 2020 may not be updated yet so you should continue to monitor these websites. If you have another idea on an event that could count for this portion of your grade, please come talk to me for approval **beforehand**.

Some guidance on writing your one-page (300 word) reflection:

I am interested in reading about what you learned from these events. What are some lessons offered in the webinar/article/lecture that you weren’t expecting to hear and why did they resonate with you? What were you expecting to hear but didn’t, and why do you think that was? How do you think you can use this information in your career moving forward? What I don’t want to read about are things like organization announcements or other boring info that I can just read about on their website.

Grading Scale:

The following table is used to assign final course grades. I do not round grades, so 89.50 is a B+.

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

Note: Above percentages are % of overall points earned

Additional Information**Attendance / Participation Expectations:**

I will not be monitoring attendance, but I hope that you attend and actively participate in each class session. I understand that extenuating circumstances occasionally arise which may affect your ability to be in class; in those situations, please let me know as soon as is reasonable if you cannot attend. I will still hold you accountable for the content covered in those sessions so you should first contact fellow students to catch up and then come see me during student hours with any remaining questions.

In rare but extreme situations, I may have to enforce University rule [3335-8-33](#), which states that any student may be disenrolled from a course for failure to attend by the first Friday of the term, or by the 3rd instructional day of the term, or by the second class meeting, whichever occurs first.

Technology Policy:

Please silence your phones before each class (not on vibrate). Bring your laptops or tablets to class because we will use them for in class exercises. Laptops are best unless your tablet has Excel and a keyboard. Recording lectures is not permitted. I also strongly encourage you to take notes by hand, rather than by typing them out, since [research shows](#) that longhand notetaking results in a deeper understanding of the material than taking notes via laptop.

Course-specific Copyright Policy:

Material provided by the instructor may not be re-posted anywhere without the explicit permission of instructors. See University Copyright Policy.

Additional Learning Accommodations:

The University strives to make all learning experiences as accessible as possible. 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, please 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; 614-292-3307; slds.osu.edu;

SLDS Office: 098 Baker Hall, 113 W. 12th Avenue.

Mental Health Resiliency:

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. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling [614-292-5766](tel:6142925766). CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at [614-292-5766](tel:6142925766) and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org. The first person to email me the phrase, "Go Bucks!" will get two bonus points on their first exam.