

Institutional Syllabus - GBTT 251-01 Transportation Systems

Spring 2022

James Drogan 12/28/21

1. COURSE DESCRIPTION

GBTT 251 Transportation Systems 3 class hours, 3 credits. This course presents an overview of the global transportation systems that help integrate our world, including their operation, design, and the economic factors that help drive and influence the supply chains of which they are a part. This course is the first in a sequence of two courses, the other being GBEC 428 Economic Geography, that integrates the presentation and learning of three elements primary to contemporary transportation: 1) system design, organization, and control; 2) global environments and factors, including culture and ethics, that influence transportation processes and activities; and 3) the economics of transportation, including the effects of demand and supply, private sector costing and pricing strategies, and government regulation at all levels.

3.000 Credit hours

3.000 Lecture hours

Prerequisite(s): GBUS 100

Corequisite(s): None

Follow-On Courses: GBEC 428 Economic Geography

Role in Curriculum: Major course

- II. TEXT(S)
 - A. Required Text(s):
 - Coyle, J. J., Novack, R. A., Gibson, B., & Bardi, E. J. (2010). *Transportation: A Supply Chain Perspective* (7th ed.). South-Western Cengage Learning. 0-324-78919-X. Chapter 3 is required for course module 4; chapters 5, 6, and 8 are required for course module 6; chapter 10 is required for course module 10.
 - a. You may find of interest the following option since only five chapters are required from this text for this course
 - (a) Point your browser at Cengage Learning > Higher Education at http://www.cengage.com/search/showresults.do?N=16&iba=W150089 46
 - (b) Enter the ISBN number (0-324-78919-X) in the search box.

- (c) To the right of the resulting screen you will see a box labeled *Purchase at CENGAGE brain*. Click on the *View* button in that box and you will be presented with a screen labeled *Purchase Options*.
- (d) Make your selection and complete the transaction.
- b. This book is on reserve in the Luce Library.

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Transportation : a supply chain perspective Coyle, John J. (John Joseph), 1935-©2011 Available at Stephen B. Luce Library Circulating Collection (HE151.C88 2011)

 Stutz, F. P., & Warf, B. (2012). *The World Economy: Geography, Business, Development* (6th ed.). Saddle River NJ: Pearson Education. 0-321-72250-7. Chapter 1 is required for course module 1; chapter 9 for course modules 3, 4, and 5; chapter 13 for course module 9; chapter 14 for course module 13.

Please note that this text is also used in GBEC 428.

- a. You may find the following of interest since only four chapters are required from this text for this course.
 - (a) Point your browser at *myPearsonstore* at <u>http://www.mypearsonstore.com/index.asp</u>
 - (b) Choose your country
 - (c) Enter the ISBN number, 0-321-72250-7, in the box labeled *Find Book*, then click *Search*.
 - (d) On the resulting screen you will see a box giving you two choices for digital and one for print.
 - (e) Make your selection and complete the transaction.
- b. This book on reserve in the Luce Library.



B. Supplemental Material:

This is an online course taught using the Blackboard Learning Management System.

Generally, all instruction, relevant materials (except texts as noted above), and communication with faculty and fellow students is through Blackboard.

Login at <u>https://www.sunymaritime.edu/</u> > Academics > Blackboard Login using your e-mail id and password.

- III. BS in International Transportation and Trade Program Student Learning Outcomes Upon successful completion of the BS in ITT, the student will be able to:
 - A. Make rational business decisions by identifying issues, formulating hypotheses, collecting data and employing business decision-support tools.
 - B. Demonstrate and illustrate leadership skills.
 - C. Demonstrate the ability to communicate persuasively.
 - D. Apply ethical standards to business.
 - E. Discuss and interpret the dynamic issues of international transportation and trade.
 - F. Demonstrate the basic principles, skills, and tools of international transportation and trade

IV. STUDENT LEARNING OBJECTIVES

A. Course Objectives

Upon successful completion of GBTT 251, the student will:

- 1. Have the perspective, information, tools, and techniques that enable an understanding of transportation in the past, present, and future tenses.
- 2. Be able to use this understanding as the basis to deliver value by suggesting improvements to current and future systems.
- 3. Be able to apply the principles of critical thinking and communicate the results of this analysis.

IV. COURSE ASSESSMENTS

- A. Assessments (171 total points)
 - 1. Deliverable Points (140). Late papers earn a two (2) point deduction.
 - 2. Online Activity in Hours (15). In a three-credit classroom course the expectation is that you will spend one and one-quarter hours in the classroom per class. In general, one point per class would be awarded for this attendance.

Online presence is the online equivalent of attendance and is measured by the time spent on Blackboard on this course. Prescence is online time, as provided by Blackboard, divided by 1.25 (one hour 15 minutes).

- 3. Team Assessment Points (16) Failure to submit a team assessment will cause you to receive zero (0) for the team grade.
- B. External Assessments

Performance in follow-on course(s)

V. ACCOMMODATIONS FOR STUDENTS WITH LEARNING DISABILITIES

A. Students with a documented disability and seeking to utilize services should contact Dr. Sherill Anderson, Assistant Dean of Student Affairs at <u>sanderson@sunymaritime.edu</u> or by visiting Student Affairs on the first floor of Baylis Hall. All academic accommodations are assessed and provided on an individual basis and must be grounded in documentation. Accommodations will be made during the academic year for KUP's (knowledge, understanding, and proficiency) tested as part of a written exam. No accommodations will be made for practical assessments outlined in the STCW guidelines. All student disability information is confidential. Students must meet with Accommodation Services EACH SEMESTER in which they wish to receive accommodations. Faculty cannot provide accommodations without official notification from Accommodation Services (Student Affairs).

VI. ACADEMIC INTEGRITY POLICY

A Maritime student's submission of work for academic credit indicates that the work is the student's own. All outside assistance should be acknowledged, and the student's academic position truthfully reported at all times. In addition, Maritime students have a right to expect academic integrity from each of their peers.

Students are expected to do their own work in class, on assignments, laboratory experiments, and examinations or tests in accordance with the directions given by the instructor. It is the responsibility of all students to read and understand this statement of College policy on academic integrity. Maritime College considers the violation of academic integrity a serious matter, and one that will be treated as such.

A student who violates academic integrity may, depending on the nature of the offense, be subject to one or more of the following measures: failure of the assignment or examination, failure of the course, dismissal from the Regiment of Cadets, or dismissal from the College. Violations of academic integrity, also known as academic dishonesty, are subject to review by the Judicial Board. In addition to facing the Judicial Board, Regimental Students may be brought before a Captain's Mast and/or a Suitability Hearing Board if the violation has occurred on the training ship. For further information for on ship violations, see the Organization, Operation, and Regulations Manual for the Regiment of Cadets.

The first academic integrity violation may be handled and processed by the faculty member, with concurrent notification to the Dean of Students. Violations of academic integrity can be grounds for dismissal and may result in physical and academic removal from the College. For further information please refer to the Student Code of Conduct

(http://www.sunymaritime.edu/sites/default/files/media/Documents/AcademicIntegrityPolicy.pdf)

VII. DIVERSITY, EQUITY, AND INCLUSION STATEMENT

The Course:

This course welcomes students from all backgrounds, experiences and perspectives. In accordance with the SUNY Maritime College Diversity, Equity and Inclusion Goal, this course intends to provide an atmosphere of inclusion, respect, and the mutual appreciation of differences so that together we can create an environment in which all students can flourish. It is the goal of the course to provide materials and activities that are welcoming and accommodating of diversity in all of its forms.

The Instructor:

Your instructor is committed to equity and actively seeks ways to challenge institutional racism, sexism, ableism and other forms of prejudice. Your input is encouraged and appreciated. If a dynamic that you observe or experience in the course concerns you, you may respectfully inform your instructor without fear of how your concerns will affect your grade. Let your instructor know how to improve the effectiveness of the course for you personally, or for other students or student groups.

ALL ACADEMIC INTEGRITY VIOLATIONS WILL BE REPORTED TO THE DEAN OF <u>STUDENTS</u>

Course Syllabus – GBTT 251-01 Transportation Systems Spring 2022

INSTRUCTOR INFORMATION

Prof. James Drogan, jdrogan@sunymaritime.edu, 718-409-7289

Office hours: by appointment. Zoom meetings are available

CLASS MEETINGS

Online course via Blackboard.

CLASS POLICIES

Modules 2 -15 of this course require team produced short (3-4 page) papers related to the subject being covered in the module. You are expected to participate as a member of the team in producing the paper. All members receive the same grade for the paper.

Tangible evidence of online presence in this course. This is confirmed by activity as recorded by Blackboard (see COURSE ASSESSMENTS p 3).

GRADING SUMMARY

Deliverables	140	82%
Online Activity in		
Hours	15	9%
Team	16	9%
Total	171	100%

No makeup work will be assigned, and nor is extra credit available.

Failure to submit a team assessment will cause you to receive zero (0) for the team grade.

Details of grading will be found on page 10 of *Rubrics for the Assessment of Ethics, Critical Thinking, Communications, Discussions, Team Performance, and Presentations* available at

(http://jmsdrgn.squarespace.com/storage/Rubrics%20for%20the%20Assess ment%20of%20Ethics%20Critical%20Thinking%20Communications%20D iscussions%20and%20Team%20Performance.pdf

Final Grade Assignments

The initial final grade is assigned according to the following table.

%	GPA	Grade
100.0%	4	А
93.0%	4	А
90.0%	3.7	A-
87.1%	3.3	B+
83.0%	3	В
80.0%	2.7	B-
77.1%	2.3	C+
73.0%	2	С
70.0%	1.7	C-
67.1%	1.3	D+
63.0%	1	D
0.0%	0	F

The initial final grade represents the points attained divided by the total points available. The resulting percentage guides me in the assignment of the final grade. What this means is that the final grade I assign may be different from the mathematical grade. In assigning the final grade I take into account your consideration, respect, and encouragement of others; your desire for learning and discipline in completing the assignments; your ability to bring relevant issues to the attention of the class.

"Not everything that counts can be counted, and not everything that can be counted counts." Albert Einstein

COURSE OUTLINE

Overview

Transportation systems connect centers of economic activity. These centers may be sources of supply and demand for products and services and/or centers, such as an airport, where goods and services transfer within and between modes. A transportation system does not exist alone; it requires a means of management in order to produce the desired outcome, and a means of regulation to insure it operates within the bounds of accepted legal, economic, and social principles. We can't really discuss transportation systems without mention of management and regulation. However, in this course the principal focus will be on the physical system. Other courses of study take up management and regulation in more detail.

Key points include:

- Transportation systems ameliorate the effects of economic geography thereby enabling the wellbeing of mankind.
- Transportation management allocates and control resources thereby enabling effective and efficient transportation systems.
- Transportation regulation establishes the means for controlling the excesses of mankind for the purpose of maximizing the well-being of the majority.

The course begins with an examination of how centers of economic activity developed, how this shaped the transportation system, the impact

of the industrial, technological and information ages, and how developments in these ages overcame the restrictions of geography.

The second third of the course focuses on the three primary transportation modes -- trucks, railroads, water -- their similarities and differences, the manner in which modes can be combined to improve the customer experience, and the challenges presented by globalization.

The last portion of the course takes up the matter of future transportation systems including potential services, their design, implementation and operation, and the way globalization and transportation systems interact.

The aim of this course is to provide you with the perspective, information, tools, and techniques that enable an understanding of transportation in the past, present, and future tenses. This understanding provides the basis for you to deliver value to by suggesting improvements to current and future systems.

Course Design

The course comprises 15 modules, each of which is, in general, the focus of a specific aspect of transportation systems.

Weeks	Date	Day of Week	Topic	Deliverable Points	Online Activity in Hours		
	1/10/22		1. Introduction to Transportation Systems and the Course	Denverable Fontes	Hours		
Week 1	1/14/22	Friday			1		
	1/17/22		2. Transportation Systems Prior to the Industrial Revolution	Fransportation Systems Prior to the Industrial Revolution			
Week 2	1/21/22	Friday	Paper 1	10	1		
	1/24/22	Monday	3. The Transformation of the Industrial Revolution				
Week 3	1/28/22	Friday	Paper 2	10	1		
Week 4	1/31/22	Monday	4. The Rise of Regulation				
Week 4	2/4/22	Friday	Paper 3	10	1		
Week 5	2/7/22	Monday	5. The Transformation of the Information Age				
Week 5	2/11/22	Friday	Paper 4	10	1		
Week 6	2/14/22	Monday	6. The Fundamental Modes of Transportation				
Week b	2/18/22	Friday	Paper 5	10	1		
Week 7	2/21/22	Monday	7. General Enterprise Structure				
Week /	2/25/22	Friday	Paper 6	10	1		
Week 8	2/28/22	Monday	8. Issues of Design, Implementation, and Operations				
Weeko	3/4/22	Friday	Paper 7	10	1		
Week 9	3/7/22	Monday	9. Globalization and the Impact of Transportation Systems				
WEEK 5	3/11/22	Friday	Paper 8	10	1		
Week 10	3/14/22	Monday	10. Economic and Legal Boundaries and Freedoms				
WEEK 10	3/18/22	Friday	Paper 9	10	1		
Week 11	3/21/22	Monday	11. Intermodal Transportation				
WCCKII	3/25/22	Friday	Paper 10	10	1		
Week 12	3/28/22	Monday	12. Advances in Infrastructure, Equipment, and Business Systems				
WEEK 12	4/1/22	Friday	Paper 11	10	1		
Week 13	4/4/22	Monday	13. Security in Transportation Systems				
WEEK 15	4/8/22	Friday	Paper 12	10	1		
Week 14	4/11/22	Monday	14. Future Transportation Systems				
WCCK 14	4/15/22	Friday	Paper 13	10	1		
Week 15	4/18/22		15. Transportation Systems in the Context of Globalization				
	4/22/22	Friday	Paper 14	10	1		
Week 16	4/25/22	Monday	Finals Week				
	4/29/22	Friday	THOS WEEK				
			Totals	140	-		
					Deliverables	140	82%
					Online Activity in		
					Hours	15	9%
					Team	16	9%
					Total	171	100%

The schedule follows.

Each module is the focus of a span from Monday through Friday.

Monday is the first of the week and introduces the topic of the module. At this time, you will be assigned reading and writing. The reading builds upon the introduction of the topic and the writing asks you to apply what you have learned from the introduction, reading, and online discussion to a specific issue of the module.

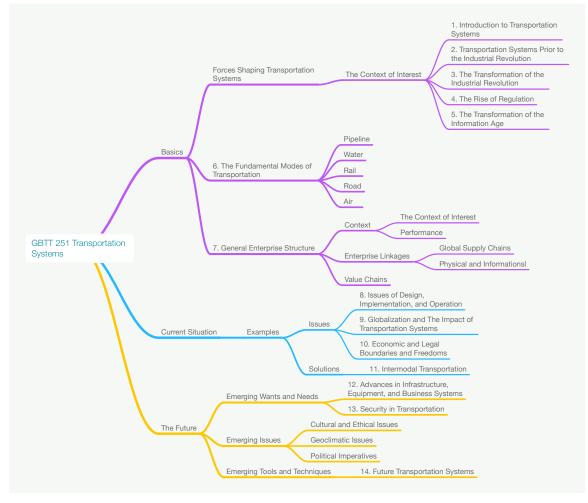
The writing assignment is due midnight on the following Friday.

For example, Paper 1 in the above schedule is to be submitted no later than Friday midnight (1/21/22). Written assignments that are late will not be accepted.

Writing Papers in GBTT 251 describes the format for these papers. This document is accessible from the course navigation panel. <u>This is assigned</u> reading.

The introduction to the subsequent topic will follow feedback on the paper submitted on the previous topic

Here is a graphical overview of the course.



The Modules

A description of the objective for each of the modules is given along with the assigned reading. The principal texts are Coyle and Stutz. Lecture notes and links to other material will be on Blackboard.

The module numbers correspond to the module numbers in the learning management system.

- 1. Introduction to the Course and to Transportation Systems
 - a. Description

An introduction to the course structure, objectives, activities, and assessments. An introduction to Blackboard, the learning management system through which material will be distributed and assignments will be submitted. Transportation systems, including their context, are outlined as well as the manner in which they will be studied and the approach for assessing student performance.

b. Reading

Economic Geography: An Introduction (Stutz & Warf, 2012, Chapter 1) Ethics, Critical Thinking, and Communications (Drogan, 2009a) Writing Papers in GBTT 251 (Drogan, 2016) The Value of Introspection (Drogan, 2009b) Teams (Drogan, 2016)

c. Writing

No assignment

- 2. Transportation Systems Prior to the Industrial Revolution
 - a. Description

Transportation systems have a long history. The fundamentals that gave rise to transportation systems -- linkage of economic centers of activity, demand, supply, place and time utility -- continue to shape transportation systems. History is ignored at peril.

"What's past is prologue." William Shakespeare, The Tempest.

"Those who cannot remember the past are condemned to repeat it." George Santayana.

b. Reading

A Splendid Exchange (Bernstein, 2008, sec. Introduction)

The Silk Road ("Silk Road," 2011)

Transportation Basics (Drogan, 2007a)

c. Writing

The Relative Advantages and Disadvantages of the Silk Road(s)

Please write about the strengths and weakness of each of the two routes, land and water, relative to one another.

- 3. The Transformation of the Industrial Revolution
 - a. Description

The Industrial Revolution provided innovations, steam and canals come to mind, that overcame the tyranny of geography and resulted in the onset, in a significant way, of globalization.

b. Reading

Transportation and Communications (Stutz & Warf, 2012, pp. 245–251 to General Properties of Transportation Costs)

Industrial Revolution (Hackett, 1992)

c. Writing Assignment

The Impact of the Industrial Age on Transportation

The reading, *Industrial Revolution (Hackett, 1992)*, makes a broad sweep across the Industrial Age identifying the significant developments of the era. One might well argue that all of these, in one-way or another, affected transportation. For our purposes, however, which development do you think had the most impact? Why do you think this?

Please write on these two questions.

- 4. The Rise of Regulation
 - a. Description

Success tends to breed both hubris and greed resulting in man taking unfair advantage of his fellow man. Consequently, regulation of various types results. Regulation has both benefits and costs. Some of each are planned for and achieved; others of each are unexpected, welcomed, and sometimes, endured.

b. Reading

Transportation and Communications (Stutz & Warf, 2012, pp. 251–254 to Personal Mobility in the United States)

Transportation Regulation and Public Policy (Coyle, Novack, Gibson, & Bardi, 2010, pp. 56–66)

c. Writing

Vagueness in Regulation

Discuss the implications of the first sentence in the sixth full paragraph on page 59 of Coyle et.al.

What happens when terms are "vague?"

- 5. The Transformation of the Information Age
 - a. Description

While the tyranny of geography was largely overcome in the industrial age, transportation systems encountered another barrier, that of information. This barrier began to be overcome with the onset of the information age (circa 1960¹) and the pursuit of two fundamental goals. The first is that everything important is visible. The second is that everything to be managed is reachable. This course considers this the second of the three ages that have radically transformed transportation.

b. Reading

Transportation and Communication (Stutz & Warf, 2012, pp. 256–269 begin with Telecommunications)

c. Writing

Information Technology in a Transportation System

There are many critical pieces of data that inform us of the state of the transportation system and allow us to be affected by and affect the state of that system.

Pick one such piece of data. Identify why it is important, how you would capture the data, how you would process it, and what would you do with the result.

As an example, consider EZ-Pass. EZ-Pass captures your tag number as you go through the toll, calculates the amount you should be charged for that passage, and debits your account. Please do not use this example in your paper.

The references here is to the Southern Pacific Railroad and its development of the Total Operations Processing System (TOPS). See https://en.wikipedia.org/wiki/TOPS. American Airlines began the development of a seat reservation system (SABRE) in the early 1950s. See https://en.wikipedia.org/wiki/Sabre_(computer_system).

- 6. The Fundamental Modes of Transportation
 - a. Description

There is general acceptance of five modes of freight transportation; air, pipeline, railroad, truck, and water. Each of these modes presents a different set of capabilities to the market. The three most significant modes, based on volume, are railroad, truck, and water. These are covered in some detail.

b. Reading

Truck (Coyle et al., 2010, pp. 163–177)

Railroad (Coyle et al., 2010, pp. 195–223)

Water (Coyle et al., 2010, pp. 256–269)

c. Writing

Moving Newsprint from Vancouver to San Diego

Assume there to be a plant in Vancouver BC Canada that produces newsprint that has been purchased for use in a printing plan in San Diego CA.

Write about the principle considerations required to select a suitable mode of transportation from the origin to the destination.

If you are unsure of the location of Vancouver and San Diego, and what the two locations have in common, consult a map. Limit yourself to the three major modes we have discussed.

- 7. General Enterprise Structure
 - a. Description

Transportation systems are a collection of interlinked mobile and fixed assets structured for a particular purpose to achieve goals and objectives through being subject to a combination of people, processes, and information that direct the acquisition, deployment, control, and retirement of the assets.

b. Reading

Introduction to Transportation Systems (Sussman, 2000, Chapter 1)

Note on Building a Management System (Drogan, 2005)

c. Writing

Three modes - railroad, truck, and water - are the focus of this course.

Select one of these modes and describe the major processes required for this mode to be successful.

- 8. Issues of Design, Implementation, and Operation
 - a. Description

Transportation systems are a combination of what is permitted within geoclimatic constraints and the ambitions of those seeking to connect centers of economic activity thereby satisfying demand with supply whilst providing economic benefit. Transportation systems are a product of increasingly sophisticated thinking regarding design, implementation, and operation.

b. Reading

Networks (Drogan, 2007)

Introduction to System Design and Control (Drogan, 2008)

c. Writing

Moving a BMW from Berlin to Virginia

Describe a transportation system that will move a BMW manufactured in Berlin, Germany to a customer in Virginia, Illinois.

- 9. Globalization and the Impact of Transportation Systems
 - a. Description

The third major age that is transforming transportation systems is globalization, the growing interdependency amongst nations and people of the world. There is a growing co-dependence between globalization and transportation. This trend is not likely to lessen over the near future.

Globalization is the free, fast, reliable worldwide movement of products, services, money, information, ideas, news, culture, and people. This movement is motivated by the desire to increase value whether it is product exported from one country to another, or people migrating from one region of the world to another.

Transportation enables globalization, and it is globalization that creates the demand for transportation.

b. Reading

International Trade Patterns (Stutz & Warf, 2012, Chapter 13).

No Ordinary Disruption: The Four Global Forces Breaking All the Trends (Dobbs, Manyika, & Woetzel, 2015, sec. An Intuition Reset)

The Anatomy of a Taco (Schwartz, 2010)

c. Writing

Globalization and the Impact of Transportation Systems

Assume the overall goal of globalization is to improve the wellbeing of society. Write about one thing that transportation can implement to affect this outcome.

- 10. Economic and Legal Boundaries and Freedoms
 - a. Description

Transportation systems exist within the context of a dynamic economic and legal context. The freedoms to operate within boundaries are set at the local, state, regional, national, and international level.

'Adrian Gonzalez...ARC Advisory Group, estimated that a typical cross-border shipment involves the accurate completion and filling of 35 documents, interfacing with 25 parties including customs, carriers and freight forwarders, and complying with over 600 laws and 500 trade agreements that are constantly changing.' (Cottrill, 2003, p. 17)

b. Reading

Global Transportation Planning (Coyle et al., 2010, pp. 331–344) *The World Trade Organization in Brief* (*The World Trade Organization in Brief*, 2009)

c. Writing

Free Trade and Global Regulation

In a complex and rapidly changing world regimes are necessary to hold back chaos. Discuss a regime you consider to be essential for control. What are its main goals? Who should participate?

- 11. Intermodal Transportation
 - a. Description

If a single mode could provide all the capabilities required to meet global needs, then, quite likely, only one mode would exist. Each of the three major modes has strengths and weaknesses. Often the strengths of one mode offset the weakness of another mode. Inevitably one is led to combining the strengths of the modes to overcome the weaknesses of the modes in order to provide higher levels of economic value to the users of the transportation systems.

b. Reading

Global Transportation Planning (Coyle et al., 2010, pp. 344–349) *Intermodal Transportation* (Rodrigue, Slack, & Comtois, 2011)

c. Writing

Seatrain Louisiana

You will find this ship model in the Maritime Museum.

Please describe its purpose in the context of intermodal transportation. Are there any existing examples of this sort of ship in service?

- 12. Advances in Infrastructure, Equipment, and Business Systems
 - a. Description

Man is a restless animal, always on the prowl for new and better ways of thinking and doing. This translates into advances in transportation infrastructure and equipment, of which the container is perhaps the most significant example, and of business systems, of which the business system essential to Amazon fulfillment is perhaps the most significant example. These advances fundamentally transform the transportation system.

b. Reading

The Driverless Truck is Coming, and It's Going to Automate Millions of Jobs (Petersen, 2016)

How and Why They Are Raising the Bayonne Bridge Roadway (O'Connell, 2014)

c. Writing

Your idea for an advance in infrastructure, equipment, or business system.

Describe an idea you have for an improvement in transportation infrastructure, equipment, or business system. What do you think its impact might be?

- 13. Security in Transportation
 - a. Description

Transportation is one of the critical systems that enables global development and growth leading to improvement in the human condition. Transportation is also one of the most complex systems that man has devised (or sometimes stumbled on to) and as complexity grows the less we understand and the more difficult becomes the task of managing the system.

Instances of disruption to the system – sometimes by natural causes and other times through mistakes or deliberate efforts on the part of the human component of the system – abound. It would seem that these increase in frequency and impact as time develops.

The current and emerging situation demands action to prevent and recover from these disruptions.

b. Reading

Global Trade and Total Security Management (Ritter, Barrett, & Wilson, 2012, Chapter 1)

c. Writing

Assessment of a Vulnerability in the Transportation System

The concept of The Everythings has been discussed in this course. Select an everything that you consider vulnerable to disruption that would have a significant impact on the transportation system. Describe the nature of the vulnerability and its impact on the system. Suggest an approach to preventing the disruption.

- 14. Future Transportation Systems
 - a. Description

The further one pushes beyond today, the more unfamiliar the territory. The age of the rotary phone restricted one to an area defined by the length of the cord connecting the microphone and earpiece to the cradle has given way to the smartphone where almost anything is possible at anytime from anyplace. The "anys" are a modern mantra. There is every reason to think that any product may someday be available at anytime and anyplace to anyone. Making this possible will be the transportation system responding to, and perhaps provoking, the needs and wants of the global citizen. There is the anticipation of significant advancements in transportation systems, the most significance of which may be in the roles, responsibilities, risks, and rewards associated with the most critical of components, the human.

b. Reading

Drogan, J. (2017). Some Observations on Rethinking Transportation 2020-2030. \Documents. http://jmsdrgn.squarespace.com/storage/Some%20Observations%20on%2 0Rethinking%20Transportation%202020-2030.pdf

This reading will stretch your thinking in several ways. It's likely different than most of what you read. Don't give up on it.

- c. Writing TBD (students are asked to make suggestions)
- 15. Transportation Systems in the Context of Globalization
 - a. Description

My view of globalization is

Globaliza	ation is
the easy, fast, reliable worldwide exchange of items of value and movement of people in search of value	 Goods and services Money Information Ideas News and culture People

But it turns out that that it is increasingly shaped by geopolitical and geoclimatic forces.

This concluding module looks at these developments.

b. Reading

TBD

c. Writing

TBD

SCHEDULE

					Online Activity in		
Weeks	Date	Day of Week	Topic	Deliverable Points	Hours		
	1/10/22		1. Introduction to Transportation Systems and the Course				
Week 1	1/14/22				1		
March 2	1/17/22	Monday	2. Transportation Systems Prior to the Industrial Revolution				
Week 2	1/21/22	Friday	Paper 1	10	1		
Week 3	1/24/22	Monday	3. The Transformation of the Industrial Revolution				
Week 5	1/28/22	Friday	Paper 2	10	1		
Week 4	1/31/22	Monday	4. The Rise of Regulation				
Week 4	2/4/22	Friday	Paper 3	10	1		
Week 5	2/7/22	Monday	5. The Transformation of the Information Age				
Week 5	2/11/22	Friday	Paper 4	10	1		
Week 6	2/14/22	Monday	6. The Fundamental Modes of Transportation				
Week 0	2/18/22	Friday	Paper 5	10	1		
Week 7	2/21/22	Monday	7. General Enterprise Structure				
WEEK7	2/25/22	Friday	Paper 6	10	1		
Week 8	2/28/22	Monday	8. Issues of Design, Implementation, and Operations				
WEEKB	3/4/22	Friday	Paper 7	10	1		
Week 9	3/7/22		9. Globalization and the Impact of Transportation Systems				
Weeks	3/11/22		Paper 8	10	1		
Week 10	3/14/22	Monday	10. Economic and Legal Boundaries and Freedoms				
WCCK 10	3/18/22	Friday	Paper 9	10	1		
Week 11	3/21/22		11. Intermodal Transportation				
WCCKII	3/25/22		Paper 10	10	1		
Week 12	3/28/22	Monday	12. Advances in Infrastructure, Equipment, and Business Systems				
WCCK 12	4/1/22	Friday	Paper 11	10	1		
Week 13	4/4/22	Monday	13. Security in Transportation Systems				
WCCK 15	4/8/22	Friday	Paper 12	10	1		
Week 14	4/11/22		14. Future Transportation Systems				
Week 11	4/15/22		Paper 13	10	1		
Week 15	4/18/22		15. Transportation Systems in the Context of Globalization				
Week 15	4/22/22		Paper 14	10	1		
Week 16	4/25/22		Finals Week				
	4/29/22	Friday					
			Totals	140			
					Deliverables	140	82%
					Online Activity in		
					Hours	15	9%
					Team	16	9%
					Total	171	100%

GRADING

1. Deliverable Points: Fourteen deliverables due in this course. The grade is determined according to the following rubric.

Rubric				
	4 Consistently Exceeds Requirements	3 Exceeds Requirements at Times	2 Meets Requirements	1 Fails to Meet Requirements
Clear, Precise, Concise	Words and structure match the context	The words and structure match the	The words and structure do not match the	The words and structure do not match the
	and clearly convey the intent of the	context, but occasionally interfere with	context to a noticeable degree and	context nor do they permit an
	communications. Graphics are	clearly understanding in the intent of the	consistently interfere with understanding	understanding of the intent of the
	appropriate in support of the narrative.	communications. Graphics are	the intent of the communications.	communications.
		occasionally inappropriate.		
Compelling	Compels one to read and accept the	Compels one to read, but occasionally	Occasionally impedes the reading and	Substantial difficulty in reading and
	assessments, conclusions, and	causes one to question the assessments,	accepting the assessments, conclusions,	accepting the assessments, conclusions,
	recommendations included therein	conclusions, and recommendations and recommendations included therein. a		and recommendations included therein.
		included therein.		
Relevant	All aspects are relevant to the	There are a few, minor examples of	There are a few, major examples of	Examples of inattention to the
	requirements of the assignment.	inattention to the requirements of the	inattention to the requirements of the	requirements of the assignment abound.
		assignment.	assignment.	
Credible	Little to no evidence of concern.	Occasional, minor evidence that generates	Occasional, major evidence that generates	Major question of credibility.
		concern.	concern.	
	16	12	8	4

After a paper is read the description of each of the four characteristic that best matches the student work is selected. There will only be one in each row. An overall GPA number is derived and this is used to determine the points and letter grade for the assignment.

Here is an example.

	4 Consistently Exceeds Requirements	3 Exceeds Requirements at Times	2 Meets Requirements	1 Fails to Meet Requirements	٦.
Clear, Precise, Concise		The words and structure match the			
		context, but occasionally interfere with			
		clearly understanding in the intent of the			
		communications. Graphics are			
		occasionally inappropriate.			
Compelling		Compels one to read, but occasionally			7
		causes one to question the assessments,			
		conclusions, and recommendations			
		included therein.			
Relevant	All aspects are relevant to the				
	requirements of the assignment.				
Credible		Occasional, minor evidence that generates			٦.
		concern.			
	4	9	0	0	
				GPA	Ā
				Points	s

The points earned were 8.3 of 10 and the letter grade was a B.

- 2. Online Activity in Hours: It is the responsibility of the student to be continually involved in this class. This is indicated by the time spent online in Blackboard.
- 3. Team Assessment Points: Your teammates assess your contribution to the team based upon whether they would like to be on a team with you in the future. See *Teams* (Drogan, 2016) for additional information on teams.

Here is a recapitulation of the points assigned in this course.

Deliverables	140	82%
Online Activity in		
Hours	15	9%
Team	16	9%
Total	171	100%

Letter

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Appendices

Writing Papers in GBTT 251

James Drogan 12/18/19

These instructions apply only to sections of GBTT 251 taught by Jim Drogan.

Papers called for in this course, unless you are advised otherwise, should conform to the following.

- 1. MS Word with a readable font such as Calibri (shown here) or Times New Roman 10-12 points; single-spaced.
- 2. The file name is the team number followed name of the assignment. For example, *Team 1 The Relative Advantages and Disadvantages of the Silk Road(s).*
- 3. Papers should be no longer than three single-spaced pages (about 1,500 words). No assignments will be given where a concise, precise, clear, compelling, and complete submission should require more than this amount of space or number of words. Say what you have to say and then stop. Don't pad to get to 1,500 words. It wastes you time and mine.

Write in paragraphs.

A paragraph is a component of fictional prose and non-fiction writings.

The purpose of a paragraph is to express a writer's thoughts on a particular point in a clear way that is unique and specific to that paragraph. In other words, paragraphs shouldn't be mixing thoughts or ideas. When a new idea is introduced, generally, a writer will introduce a new paragraph.²

4. The format of the paper should be:

Title of the Paper

Team #

Date

Brief introduction summarizing the assignment.

Writing on the assignment.

Brief conclusion summarizing your reaction to the assignment.

5. References are not required on these short papers, but you need to be prepared to cite sources if I ask.

 $^{^2\} https://writing explained.org/grammar-dictionary/paragraph$

- 6. Use the tools (for example, grammar and spell checker) of MS Word to make life easier.
- 7. Think before writing. Have an idea of the main points you wish to make and how you will make them before writing.
- 8. Read what you have written. Does it meet the requirements of the assignment? Does it say what you mean to say?

I've been around a bit and during that time I've come to the conclusion that there are three qualities critical to success: *Ethics, Critical thinking, Communications.*³

The writing assignments are intended to help you develop these qualities.

*Rubrics for the Assessment of Ethics, Critical Thinking, Communications, Discussions, and Team Performance*⁴ prescribes a set of rubrics for the assessment of written work. Eleven characteristics are evaluated using four measures of for each characteristic across the three general rubrics. In GBTT 251 these are consolidated into a single rubric measuring four factors with an emphasis on communications.

$\begin{array}{c} \text{Assessmen} \\ t \rightarrow \end{array}$	Consistently Exceeds Requirements	Occasionally Exceeds Requirements	Meets Requirements	Fails to Meet Requirements
Factor \downarrow	4	3	2	1
Concise, Precise, Clear	Words and structure match the context and clearly convey the intent of the communications Graphics are appropriate in support of the narrative.	The words and structure match the context, but occasionally interfere with clearly understanding in the intent of the communications Graphics are occasionally inappropriate.	The words and structure do not match the context to a noticeable degree and consistently interfere with understanding the intent of the communications	The words and structure do not match the context nor do they permit an understanding of the intent of the communications

³ For more on these see Ethics, Critical Thinking and Communications (Drogan, J. (2009). Ethics, Critical Thinking, and Communications. In Useful Items to Pack for Your Trip (pp. 65–90). SUNY Maritime College: James Drogan. Retrieved from http://jmsdrgn.squarespace.com/storage/Ethics%20Critical%20Thinking%20and%20Communications.pdf

⁴ See Drogan, "Rubrics for the Assessment of Ethics, Critical Thinking, Communications, Discussions, and Team Performance." Retrieved from

http://jmsdrgn.squarespace.com/storage/Rubrics%20 for%20 the%20 Assessment%20 of%20 Ethics%20 Critical%20 Thinking%20 Communications%20 Discussions%20 and%20 Team%20 Performance.pdf

Compellin g	Compels one to read and accept the assessments, conclusions, and recommendation s included therein.	Compels one to read, but occasionally causes one to question the assessments, conclusions, and recommendation s included therein.	Occasionally impedes the reading and accepting the assessments, conclusions, and recommendation s included therein.	Substantial difficulty in reading and accepting the assessments, conclusions, and recommendation s included therein.
Relevant	All aspects are relevant to the requirements of the assignment.	There are a few, minor examples of inattention to the requirements of the assignment.	There are a few, major examples of inattention to the requirements of the assignment.	Examples of inattention to the requirements of the assignment abound.
Credible	Little to no evidence of concern.	Occasional, minor evidence that generates concern.	Occasional, major evidence that generates concern.	Major question of credibility.

The assessment process is the result of reading the submission and judging each of the Factors (rows) on the basis of the Assessment of the degree to which the expectation of the factor are met. For example:

	4	3	2	1	
Clear, Precise, Clear	Х				
Compelling		Х			
Relevant			Х		
Credible				Х	
	4	3	2	1	2.5

The assessment of a submission may be as shown above. The grade points are vertically summed in the bottom row. That sum is divided by four to yield a grade of 2.5 (C+) for this submission. For example, for a midterm worth 20 points, the points awarded would be 15.6.

Final Words

It makes little difference how smart one is if one can't explain one's self in a compelling manner.

It makes little difference how smart one is if one lacks an ethical base.