

**Supply Chain Management**  
**Course Number: 29:799:455**  
**Course Title: Supply Chain Transformation in the Digital Era**

## **COURSE DESCRIPTION**

This course focuses on the growing impact of technology, data, and online marketplaces on supply chain management. Students will receive hands-on training of Tableau, a best-in-class data visualization platform, and be exposed to multiple other real-world analytics tools demonstrated by industry experts. By utilizing engaging teaching tactics geared towards millennial learning styles, this course encourages big picture thinking on global eCommerce trends while teaching specific technical skills that are highly-valued in today's job market.

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## **COURSE MATERIALS**

It is impossible for one book to cover all the aspects of eCommerce and digital evolution. Instead, I will gradually post course materials on Canvas, under the "Files" folder. However, students should leverage the following websites, among others, to identify current events in the space:

<https://www.supplychaindigital.com/>

<https://www.supplychaindive.com/>

For students who are interested in developing a deeper understanding of data visualizations and getting the most out of Tableau, I suggest getting the following books. You are not required to purchase these books.

[Storytelling with Data: A Data Visualization Guide for Business Professionals](#)

[Tableau Your Data!: Fast and Easy Visual Analysis with Tableau Software](#)

[The Truthful Art: Data, Charts, and Maps for Communication](#)

[The Functional Art: An introduction to information graphics and visualization](#)

[Envisioning Information](#)

See Course Announcements for instructions on how to download Tableau. There is a unique product key you should use for this course:

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## LEARNING GOALS AND OBJECTIVES

This course is designed to help students develop skills and knowledge in the following area(s):

- **Business knowledge.** Students will have a command of business theory and practice in the field of supply chain management.

Students who complete this course will demonstrate:

- a) Mastery of eCommerce fundamentals and an ability to apply these concepts to understand the future business needs of multiple functional areas.
- b) Understanding of change management principles that allow for flexible and innovative resolution of practical business problems.

- **Data Analytics software skills.** Students will learn via demonstrations and hands on experience a variety of technical applications used in real-world business environments Students who complete this course will demonstrate:

- a) Working knowledge of Tableau visualization software
- b) Basic understanding of how artificial intelligence is impacting the world of analytics □

**Persuasive communication.** Students will be effective communicators.

Students who complete this course will demonstrate:

- a) Ability to construct clear, concise, and convincing written business communication.

Students develop these skills and knowledge through the following course activities and assignments:

- **Lectures/Class Discussion.** Delivery of basic concepts, architecture, and terminology of eCommerce along with its impact on global sourcing, analytics, manufacturing, and logistics. The course will also teach students how to modify work processes for speedy decision making via basic change management techniques. Class discussions will be held on weekly readings of current events. **Consistent student participation and engagement is critical to success.**
- **In-class (and Homework) Software Exercises.** Mock business situations will be outlined for students to solve during class time using Tableau. Students will be expected to share out their results via short presentations. Concise and effective business communication will be practiced and refined via feedback from the instructor and student peers.
- **Weekly LinkedIn Posts.** Students are required on a weekly cadence to post an article of choice to his/her LinkedIn with commentary included. Students will be selected at random each week to present their article to the class.
- **Case Study Analysis.** Each student is required to individually complete a 3-5 page analysis of a case study, which will be assigned in Canvas. The case study will be in the form of a .doc report (letter size paper, 1.5-lines spaced, Times New Roman, and 12 pt. font) should be submitted. The report should focus on 1) description of the case, 2) a critical interpretation of the case, 3) what you have learned, and, 4) your suggestions if any. You should consider using additional sources to supplement your understanding of the case and its implications.
- **Team Research Project & Presentations.** Students will select a research topic of their choice with details as follows:

- Any topic related to the course contents is acceptable, such as capability descriptions, case studies, and implementation plans. The project/presentation can focus on one of the many emerging areas of the digital supply chain. This will help students better understand the business transformation challenges for both small and large businesses struggling to keep pace in the digital era.
    - Groups of three (3) or four (4) students each will be assigned to a team. Student teams will be posted along with email contact information in Canvas near the beginning of the semester. Students are responsible to check to see to which team number they are assigned and what date their team is scheduled to present.
  - Each team prepare will prepare a 20-minute presentation (with no more than fifteen slides excluding the title page) outlining and discussing the chosen topic.
    - The project score is determined by the creativity of the topic, the quality of work and the effectiveness of presentation (clarity, time control, engagement, team work, Q&A, etc.).
  - All students are required to participate in both researching and presenting the topic to receive full credit for participation on this project.
  - Student teams are expected to organize themselves to complete this assignment.
  - Students who fail to participate in the Team Project/Presentation will receive a 0%.
  - If you have any questions or concerns about this assignment, please make sure to see me at the beginning of the semester.
- **Test of Concepts.** Students will need to demonstrate their understanding of the concepts discussed during the lectures in addition to a solid working knowledge of Tableau.

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## DEADLINE EXTENSION AND EXAM MAKE-UP POLICIES

Deadlines will not be extended (late submissions will not be graded) unless you have a serious reason, and, in such cases, you **must** notify the instructor **(3) days** before the deadline.

There will be no make-up exams unless you have a serious reason, and, in such cases, you **must** notify the instructor **(5) days** before the exams.

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## ACADEMIC INTEGRITY

*I do NOT tolerate cheating.* Students are responsible for understanding the RU Academic Integrity Policy <http://academicintegrity.rutgers.edu/>

I will strongly enforce this Policy and pursue *all* violations. On all examinations and assignments, students must sign the RU Honor Pledge, which states, “On my honor, I have neither received nor given any unauthorized assistance on this examination or assignment.” I will screen all written assignments through *SafeAssign* or *Turnitin*, plagiarism detection services that compare the work against a large database of past work. Don’t let cheating destroy your hard-earned opportunity to learn. See [business.rutgers.edu/ai](http://business.rutgers.edu/ai) for more details.

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## ONLINE RESOURCES

<https://www.tableau.com/>

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## GRADING POLICY

Class Participation	15%
Individual Case Study	20%
Homework Assignments	10%
Team Research Project/ Presentation	25%
Test of Concepts	30%

## GRADING SCALE

90.00% - 100%	=	A
87.00% - 89.99%	=	B+
80.00% - 86.99%	=	B
77.00% - 79.99%	=	C+
70.00% - 76.99%	=	C
60.00% - 69.99%	=	D
59.99% and below	=	F

**Note:** Grades will not be rounded up at the end of the semester.

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## COURSE SCHEDULE

Wk	Topic	Assignment
1	<ul style="list-style-type: none"> <li>• Syllabus &amp; Course Overview</li> <li>• Introductions</li> <li>• <b>Introduction to Supply Chain &amp; Digitization</b></li> <li>• Overview of Tableau data analysis platform</li> </ul>	<ul style="list-style-type: none"> <li>• Class reading from Canvas (see Powerpoint Slides &amp; Articles)</li> <li>• Register for Tableau</li> </ul>
2	<p><b>Overview of Supply Chain Technology Evolution</b>  <b>Introduction to Data Visualization:</b> How is data obtained/stored/visualized in an enterprise? What technology platforms are being used today? How can the right visuals tell the right story to the end user?  <i>-Tableau lesson and exercise 1</i></p> <p><i>Talk about about a few different dataviz tools and show R or Power BI</i></p>	<ul style="list-style-type: none"> <li>-LinkedIn Article. Post article with commentary.</li> <li>-Tableau assignment</li> </ul>

3	<p><b>- Executive Dashboards</b> Why are finding the right KPIs important? How do KPIs differ by department? By seniority? What does a best-in-class executive data dashboard look like for a VP of Supply Chain? <i>-Tableau lesson and exercise 2</i></p>	<p>-LinkedIn Article. -Tableau assignment</p>
4	<p><b>-Warehouse of Tomorrow:</b> <i>Amazon warehouse tour in (.). State of the art warehouse powered by robotics. One of the most innovative warehouses on the east coast. (May occur at a later date.)</i></p> <p>How is data changing warehouse handling? Inventory Management? Logistics? How is artificial intelligence being used in warehouses? How will warehouse automation impact jobs and the economy?</p>	<p>-LinkedIn Article. -Class reading from Canvas</p>
5	<p><b>Data Visualization and Analysis I: Shipping and Logistics</b> <i>-Tableau lesson and exercise 3</i> -Group projects assigned</p>	<p>-LinkedIn Article. -Class reading from Canvas -Tableau Assignment</p>
6	<p><b>-Guest Speaker: ()</b> <b>-Change Management:</b> Basic concepts in change management. What are the pain points for large organizations to implement new technologies? How can they overcome these? <b>-In-class activity:</b> Role play a business situation in which a new forecasting software must be chosen and implemented in a short amount of time</p>	<p>-LinkedIn Article. -Class reading from - Canvas -Tableau Assignment</p>
7	<p><b>Data Visualization and Analysis II: Raw Materials</b> <i>-Tableau lesson and exercise 4</i> -Review of exam content</p>	<p>-LinkedIn Article. -Class reading from Canvas</p>
	<b>No Class</b>	
8	<p><b>-Global Sourcing/B2B procurement:</b> What is an enterprise e-marketplace? What does the global sourcing function look like with the advent of such marketplaces? <b>-Selling on Amazon:</b> Deep-dive into the world of Amazon. What is difference between first party and third party selling? Why would be a seller choose to fulfill via Amazon? What are the differences in inventory data availability between 1P and 3P sellers? -Sharing of Team Project Outline -Research Paper topics assigned</p>	<p>-LinkedIn Article. -Class reading from Canvas</p>
9	<p><b>-Amazon Inventory Data Analytics Showcase:</b> First Party vs. Third Party. Review and comparison of both sides of Amazon’s data platform.</p>	<p>-LinkedIn Article. -Class reading from Canvas</p>

10	<b>-Advanced Demand Forecasting:</b> How have forecasting models evolved over time? What are the challenges of demand planning eCommerce businesses? How are real-world forecasts built and refined?	-LinkedIn Article. -Class reading from Canvas <b>-Research Paper Due Next Week</b>
11	<b>-Guest Speaker: ()</b> <b>-The Future of Consumer Buying:</b> The rise of online B2B ordering. 2-hour grocery delivery. Voice technology. Drone delivery. Artificial intelligence.	<b>-Research Paper Due</b> LinkedIn Article. -Class reading from Canvas
12	<b>Group Project Presentations</b>	<b>Slide submission due before class</b>
13	<b>Exam Preparation / Tableau Practice</b>	
14	<b>Test of Concepts</b>	

*Note: this contents within the Syllabus are subject to change*

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## SUPPORT SERVICES

If you need accommodation for a *disability*, obtain a Letter of Accommodation from the Office of Disability Services. The Office of Disability Services at Rutgers, The State University of New Jersey, provides student-centered and student-inclusive programming in compliance with the Americans with Disabilities Act of 1990, the Americans with Disabilities Act Amendments of 2008, Section 504 of the Rehabilitation Act of 1973, Section 508 of the Rehabilitation Act of 1998, and the New Jersey Law Against Discrimination. More information can be found at [ods.rutgers.edu](https://ods.rutgers.edu).

[Rutgers University-New Brunswick ODS phone (848)445-6800 or email [dsoffice@echo.rutgers.edu](mailto:dsoffice@echo.rutgers.edu)]

[Rutgers University-Newark ODS phone (973)353-5375 or email [ods@newark.rutgers.edu](mailto:ods@newark.rutgers.edu)]

If you are *pregnant*, the Office of Title IX and ADA Compliance is available to assist with any concerns or potential accommodations related to pregnancy.

[Rutgers University-New Brunswick Title IX Coordinator phone (848)932-8200 or email [jackie.moran@rutgers.edu](mailto:jackie.moran@rutgers.edu)]

[Rutgers University-Newark Office of Title IX and ADA Compliance phone (973)353-1906 or email [TitleIX@newark.rutgers.edu](mailto:TitleIX@newark.rutgers.edu)]

If you seek **religious accommodations**, the Office of the Dean of Students is available to verify absences for religious observance, as needed.

[Rutgers University-New Brunswick Dean of Students phone (848)932-2300 or email [deanofstudents@echo.rutgers.edu](mailto:deanofstudents@echo.rutgers.edu)]

[Rutgers University-Newark Dean of Students phone (973)353-5063 or email [DeanofStudents@newark.rutgers.edu](mailto:DeanofStudents@newark.rutgers.edu)]

If you have experienced any form of **gender or sex-based discrimination or harassment**, including sexual assault, sexual harassment, relationship violence, or stalking, the Office for Violence Prevention and Victim Assistance provides help and support. More information can be found at <http://vpva.rutgers.edu/>.

[Rutgers University-New Brunswick incident report link: <http://studentconduct.rutgers.edu/concern/>. You may contact the Office for Violence Prevention and Victim Assistance at (848)932-1181]

[Rutgers University-Newark incident report link: [https://cm.maxient.com/reportingform.php?RutgersUniv&layout\\_id=7](https://cm.maxient.com/reportingform.php?RutgersUniv&layout_id=7) . You may also contact the Office of Title IX and ADA Compliance at (973)353-1906 or email at [TitleIX@newark.rutgers.edu](mailto:TitleIX@newark.rutgers.edu). If you wish to speak with a staff member who is confidential and does **not** have a reporting responsibility, you may contact the Office for Violence Prevention and Victim Assistance at (973)353-1918 or email [run.vpva@rutgers.edu](mailto:run.vpva@rutgers.edu)]

If students who have experienced a temporary condition or injury that is adversely affecting their ability to fully participate, you should submit a request via <https://temporaryconditions.rutgers.edu> .

If you are a military **veteran** or are on active military duty, you can obtain support through the Office of Veteran and Military Programs and Services. <http://veterans.rutgers.edu/>

If you are in need of **mental health** services, please use our readily available services.

[Rutgers University-Newark Counseling Center: <http://counseling.newark.rutgers.edu/>]

[Rutgers Counseling and Psychological Services–New Brunswick: <http://rhscaps.rutgers.edu/>]

If you are in need of **physical health** services, please use our readily available services.

[Rutgers Health Services – Newark: <http://health.newark.rutgers.edu/>]

[Rutgers Health Services – New Brunswick: <http://health.rutgers.edu/>]

If you are in need of *legal* services, please use our readily available services: <http://rusls.rutgers.edu/>

Students experiencing difficulty in courses due to *English as a second language (ESL)* should contact the Program in American Language Studies for supports.

[Rutgers–Newark: [PALS@newark.rutgers.edu](mailto:PALS@newark.rutgers.edu)]

[Rutgers–New Brunswick: [eslpals@english.rutgers.edu](mailto:eslpals@english.rutgers.edu)]

If you are in need of additional *academic assistance*, please use our readily available services.

[Rutgers University-Newark Learning Center: <http://www.ncas.rutgers.edu/rlc>

[Rutgers University-Newark Writing Center: <http://www.ncas.rutgers.edu/writingcenter>]

[Rutgers University-New Brunswick Learning Center: <https://rlc.rutgers.edu/>]

[Optional items that many faculty include:

- Students must sign, date, and return a statement declaring that they understand the RU Academic Integrity Policy.

- Students must sign, date, and return a statement declaring that they understand this syllabus.]