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. The class builds on hands-on learning by incorporating an excursion to Boxed.com’s state-of-the-art warehouse in Union, NJ where robots are more common than humans. 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.

COURSE MATERIALS

Textbook: Tableau Your Data by Daniel G. Murray.
Order textbook: [http://tableauyourdata.com](http://tableauyourdata.com)
About $35 on Amazon

A student license of Tableau Desktop data visualization software will be required. For students the license is free.

[Download the latest version of Tableau Desktop here](http://tableauyourdata.com)
- Click on the link above and select Get Started. On the form, enter your school email address for Business E-mail and enter the name of your school for Organization.
- Activate with your product key: TDI8-E4AC-65A0-83E6-766A

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 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.

- **Research Paper.** Each student is required to individually complete a 3-5 page research paper on one of the emerging areas of the digital supply chain under the guidance of the instructor. This will help students better master the basic concepts of eCommerce and understand the business transformation challenges for both small and large businesses struggling to keep pace in the digital era.

- **Exam.** Students will need to demonstrate a solid working knowledge of Tableau, eCommerce concepts, and basic change management strategies.

- **Group Project & Presentations.** Groups of 4-5 students each will be assigned a relevant and complex business problem to solve as a team. A 20 minute presentation on the group recommendation will be required along with a 20 slide submission of findings.

**ACADEMIC INTEGRITY**


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.” Don’t let cheating destroy your hard-earned opportunity to learn. See business.rutgers.edu/ai for more details.

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.

GRADING

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<tr>
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<th>Percentage</th>
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<tbody>
<tr>
<td>Class Participation/Attendance</td>
<td>15%</td>
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<tr>
<td>Research Paper</td>
<td>15%</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>10%</td>
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<tr>
<td>Exams</td>
<td>40%</td>
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<tr>
<td>Group Project &amp; Presentation</td>
<td>20%</td>
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A or A-: [90, 100]; B+ or B: [80-90); B-, C+ or C: [70-80); C- or D: [60-70); F [0, 60).

ONLINE RESOURCES

https://www.tableau.com/

SUPPORT SERVICES


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/

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/

COURSE SCHEDULE

Weekly Homework Assignments will be posted on Blackboard

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<tr>
<th>Date</th>
<th>Topic</th>
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| 1/22 | - Syllabus and Course Introduction  
- Visualization Best Practices  
- Overview of Tableau data analysis platform |
| 1/29 | - Tableau lesson 1. Basics Part I |
| 2/5  | - Tableau lesson 2. Connecting to Data |
| 2/12 | - Tableau lesson 3. Building Visualizations  
- Individual research paper topics assigned |
| 2/19 | - Tableau lesson 4. Creating Calculations |
| 2/26 | - Tableau lesson 4. Executive Dashboards and Storytelling  
Guest instructor and software demonstration: Nicholas Montesano, Inventory Insights and Analytics at Johnson & Johnson (Tableau expert)  
- Group projects assigned |
| 3/5  | - Bringing it all together  
- Exam topic review |
| 3/12 | No class - Spring break |
| 3/19 | - **EXAM 1** – multiple choice, data prep, and visualization creation  
- Global Sourcing/B2B procurement: What is an enterprise e-marketplace? What does the global sourcing function look like with the advent of such marketplaces?  
- Software demonstration: J&J eMarketplace: enterprise online sourcing platform  
- Selling on Amazon: 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? |
| 3/26 | - Research papers due on Blackboard  
- Boxed Tour- Union NJ. Time and logistics TBD |
| 4/2  | - Tableau lesson 5. Calculations and Advanced Visualizations  
- Amazon Inventory Data Analytics Showcase: First Party vs. Third Party. Review and comparison of both sides of Amazon’s data platform.  
- Software demonstration: Amazon’s 1P data platform: Vendor Central  
- Guest speaker and software demonstration: Andrew Vagenas, CEO Pharmapacks (Seller Central showcase. Amazon’s 3P platform) |
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| 4/9  | **Advanced Demand Forecasting**: How have forecasting models evolved over time? What are the challenges of demand planning eCommerce businesses? How are real-world forecasts built and refined?  
**Software demonstration**: J&J consumer products demand forecasting tool (Traditional forecasting tool)  
**Guest speaker and software demonstration**: Andrew Schiller, Director of eCommerce Analytics, Johnson & Johnson (Advanced forecasting tool showcase) |
**Guest speaker and software demonstration**: Samir Bhavnani, Director at 1010data (1010Data insights platform showcase) |
| 4/23 | **Group Project Presentations** |
| May  | **EXAM II**: Final Exam  
Multiple choice and advanced visualizations |