

Marketing
Course Number: 22:630:655
Course Title: Consumer Data Analytics

COURSE DESCRIPTION

This course equips students with the skills and knowledge needed to analyze and interpret consumer data, driving strategic marketing and Customer Relationship Marketing (CRM) initiatives in a data-driven economy. Combining theoretical frameworks with practical applications, students will gain a comprehensive understanding of the customer lifecycle—from acquisition to retention—and the strategic importance of enhancing consumer experience (CX) across various touchpoints.

Key topics include:

- CRM and relationship marketing strategies, emphasizing customer engagement, referral value, and information value.
- Analytical tools and techniques to understand and predict customer lifetime value (CLV) calculations.
- The use of secondary data in marketing contexts, with a focus on statistical and data analysis skills to build predictive models and optimize marketing inputs.

This course will provide a gentle introduction to programming with Python for the purpose of doing data analysis. Python is a general-purpose programming language with many open-source data analysis libraries. Thus, all software we use in this class will be free and widely adopted as industry standards. Students will learn quantitative methods to analyze real-world datasets, gaining proficiency in monitoring consumer feedback and identifying actionable insights.

Additionally, the course emphasizes decision-making capabilities by applying analytical insights to solve practical business challenges, preparing students to tackle modern marketing environments effectively.

Through a combination of hands-on assignments, a term project, and case-study/article discussions, students will explore contemporary issues in CRM and develop strategies for implementing successful customer-centric marketing initiatives. This course combines customer-focused strategies, rooted in traditional CRM frameworks, and consumer analytics, which leverage data-rich environments to explore broader behavioral patterns and engagement across diverse touchpoints. By the end of the course, students will be well-equipped to make data-informed decisions that drive consumer engagement and foster long-term brand loyalty.

COURSE MATERIALS

The course is designed to be multi-modal with a blend of lectures, case-study/article discussions, assignments, and a term project. There is no formal textbook for the course, but lecture notes covering the material will be distributed on a session-to-session basis.

Please check **Canvas** (canvas.rutgers.edu) and your official Rutgers **email** account regularly.

LEARNING GOALS AND OBJECTIVES

- Develop students' proficiency in using advanced analytical tools and techniques for consumer data analysis.
 - Equip students with a deep understanding of various consumer data sources, enabling them to manage and engage with consumers effectively.
 - Build a foundation for programming for data analytics using Python.
 - Provide a solid foundation in customer-centric marketing strategy.
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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 or plagiarism destroy your hard-earned opportunity to learn and advance. See business.rutgers.edu/ai for more details.

You do not have permission to distribute my course materials to any other person or republish any of my content to a third-party platform like Course Hero, Quizlet, etc.

Guidance on the use of AI at Rutgers

As noted in [Rutgers Academic Integrity Policy 10.2.13](#), the principles of academic integrity require that students make sure that all submitted coursework be “the student’s own and created without the aid of impermissible technologies, materials, or collaborations.

ATTENDANCE AND PREPARATION POLICY

This is a hybrid course.

In-Person Class Attendance Policy

We will meet in-person three times throughout the semester. Attendance will be tracked by in-class exercises and discussions. If you need to miss a class, please inform me **in advance** by emailing me, explaining your reason for absence. If you anticipate being late or needing to leave early for a valid reason, notify me beforehand to avoid impacting your attendance score.

Responsibility for Missed Classes and Work

Absence from class does not exempt you from meeting deadlines. You are expected to submit all assignments on time according to the class schedule, including participation in both in-class and out-of-class activities. It is your responsibility to review missed class materials and to seek clarification from me as needed.

Teamwork and Communication

You are also responsible for keeping your team informed about your availability for group meetings and work. If unable to meet in person, collaborate with your team to utilize virtual meeting tools, ensuring effective and timely participation in term projects.

Asynchronous Online Class Attendance Policy

An asynchronous online course offers the key benefit of flexibility in terms of when and where you engage with the material. Once lectures are uploaded, they're available throughout the semester. However, students must ensure they complete weekly tasks such as assignments and participating in online discussions.

The class schedule clearly lists the deadlines for all tasks, including quizzes, assignments, two exams, case-study/article discussions and the term project. The course modules will be updated every **Tuesday**. You will get one week to complete the weekly tasks. Everything must be submitted by **11:59 pm** on the specified dates.

There is *no make-up opportunity* for missing a deadline for these weekly tasks, exams, and the project.

EXAM POLICIES

This course includes **one exam**. The exam will be open-note and consist of a 90-minute combination of multiple-choice questions and short essays, submitted via Canvas. The exam content will cover material from the lecture notes, class discussions, and any additional resources provided by the instructor.

Since our class doesn't have a fixed meeting time, you will have a full week to take the exam. However, once you start the exam, you must complete it within 90 minutes. The exam cannot be

paused and resumed later. Please ensure you set aside uninterrupted time to complete it.

You are expected to take the exams during the designated weeks. Failure to do so will result in a score of zero (0).

GRADING POLICY

Grades for this course will be determined as follows:

Weekly Quiz (10 Quizzes)	20%
Assignments (3 Individual Assignments)	20%
Article and Case Discussions	15%
Class Attendance and Participation	5%
Exam	20%
Term Project	20%
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TOTAL	100%

Weekly Quizzes (10) – In an asynchronous class, it's tempting to procrastinate and cram before an exam or major deadline. However, staying consistent with your studies will not only ensure you grasp the material but also prevent last-minute stress. To encourage you to keep pace, each module will have a short quiz. To earn full marks, you should finish the quiz for the week's module(s) by 11:59 pm on each day as detailed in the course schedule.

Rest assured, these quizzes are straightforward. If you've watched the week's videos, you should find them easy. The main aim of these quizzes is to ensure you remain engaged and regularly update your knowledge throughout the term. It's best to attempt each module's quiz right after viewing its videos.

Assignments (3) – The three individual assignments reinforce the technical materials that we cover so that you can apply your new skills. You will upload your assignments on Canvas as detailed in the course syllabus.

Article and Case Discussions (3) – Throughout the semester, we have scheduled three in-person meetings. The beauty of meeting in person is the opportunity for active discussions with your peers and the sharing of knowledge. To facilitate dynamic discussions, I will share an article or case study beforehand, which students are required to read before the class. Active participation is expected during these sessions.

To ensure preparedness, students must submit a **one-page summary** of the assigned articles or case study including **a question** to your classmates that you have come up with on your own. The summary is due by 11:59 pm on the specified dates in the course schedule which is the day before our class meeting. Failure to submit the summary on time will affect your participation

grade.

In-Class Attendance and Participation – Class attendance and active participation are essential to your success in this course. Arriving late or leaving early will count against your participation points.

Exam (1) – The one will test your knowledge of the materials covered in class. Students will NOT be allowed for any make-up attempts.

Term Project – You will be asked to form a group of 2-3 people. These groups will work together on a term project designed to integrate concepts and information developed throughout the course. The project will require you to apply what you have learned about consumer data analytics, along with your prior knowledge of marketing, statistics, and business principles, into a comprehensive presentation. At the end of the semester, you will be asked to evaluate your peers on their contributions to the project. **Do not be a free rider!** Active and meaningful participation in the group is expected, as peer evaluations will factor into your overall grade.

- Term Project Proposal
 - You need to propose the idea of a real data analysis
 - Clearly identify the questions you would like to answer and the datasets you plan to analyze,
 - List the model you plan to use

- Term Project
 - Identify the problem and find a dataset to tackle the issue
 - Process your dataset
 - Implement your methods
 - Interpret the results and summarize the findings of your analysis

COURSE SCHEDULE

- All bulleted tasks need to be submitted via Canvas.

Modules	Topic	Tasks Due
Module 1	Class Introduction	• Quiz 1 • Article Summary
	Introduction to Customer Centricity and CRM, Introduction to Python	
Module 2	Understanding Customer Value	
	Customer Loyalty & Loyalty Programs	

Module 3	Customer Lifetime Value	<ul style="list-style-type: none"> • Quiz 2 • Assignment 1
Module 4	Customer Acquisition	<ul style="list-style-type: none"> • Quiz 3
Module 5	Customer Retention	<ul style="list-style-type: none"> • Quiz 4 • Assignment 2
Module 6	Customer Lifecycle Management: Customer Churn & Win-Back	<ul style="list-style-type: none"> • Quiz 5 • Case Summary
Module 7	Managing Consumer Experience: Text Analysis	<ul style="list-style-type: none"> • Term Project Proposal
Module 8	Marketing Campaign Management: Optimizing Marketing Mix	<ul style="list-style-type: none"> • Quiz 6
Module 9	Exam	<ul style="list-style-type: none"> • Exam
Module 10	Segmentation and Clustering	<ul style="list-style-type: none"> • Quiz 7 • Article Summary
Module 11	Classification	<ul style="list-style-type: none"> • Quiz 8
Module 12	Customer Centric Strategies in B2C and B2B Markets	<ul style="list-style-type: none"> • Assignment 3
Module 13	Customer Engagement	<ul style="list-style-type: none"> • Quiz 9
Module 14	Future of CRM	<ul style="list-style-type: none"> • Quiz 10
Module 15	Online Term Project Presentation	

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.

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

[Rutgers University-Newark ODS phone (973)353-5375 or email 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]

[Rutgers University-Newark Office of Title IX and ADA Compliance phone (973)353-1906 or email 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]

[Rutgers University-Newark Dean of Students phone (973)353-5063 or email 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 . You may also contact the Office of Title IX and ADA Compliance at (973)353-1906 or email at 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]

Bias incidents: an act – either verbal, written, physical, or psychological that threatens or harms a person or group on the basis of actual or perceived race, religion, color, sex, age, sexual orientation, gender identity or expression, national origin, ancestry, disability, marital status, civil union status, domestic partnership status, atypical heredity or cellular blood trait, military service or veteran status.

Bias incidents can be reported online at:

[New Brunswick Bias Incident Report Form](#)

[Newark Bias Incident Report Form](#)

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]
[Rutgers–New Brunswick: 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.]

CODE OF PROFESSIONAL CONDUCT

[If you prefer to direct students to the conduct policy online instead, please use the following link and place it beneath the header above:

<https://myrbs.business.rutgers.edu/students/code-professional-conduct>]

Rutgers Business School is recognized for its high-quality education. To that end, maintaining the caliber of classroom excellence, whether in person or online, requires students to adhere to the same behaviors expected in professional career environments. These include the following principles:

Discussion and Correspondence

- Each student is encouraged to participate actively in class discussions and exercises. Substantive dialogue requires a degree of mutual respect, willingness to listen, and tolerance of opposing points of view. Disagreement and the challenging of ideas must happen in a supportive and sensitive manner. Hostility and disrespectful behavior will not be tolerated.

- In correspondence and in the classroom, students should demonstrate respect in how they address instructors. Students should use proper titles unless there is an explicit understanding that the instructor accepts less formal alternatives. Similarly, appropriate formatting in electronic communication and timely responsiveness are all expectations in every professional interaction, including with instructors. Everything said and written should demonstrate respect and goodwill.

Punctuality and Disruption

- Class starts and ends promptly at the assigned periods. Students are expected to be in their seats or present online and ready to begin class on time.
 - Take your responsibility to attend class seriously. Your attendance is a critical element of the learning experience for in-person classes. Failure to show up disrupts your learning and signals disrespect to your peers and instructors. (Of course, illness is a legitimate exception requiring advanced reporting to the [University](#) and your instructors.)
 - Barring emergencies and within reason, students are expected to remain in their seats for the class duration. In person, packing belongings before the end of class disturbs both other students and the instructor. Online, attending to other tasks is distracting. In addition, even if webcams are not required in your course, your attention is fundamentally lacking if you are engaged in multiple tasks simultaneously.

Technology

- The use of technology is sanctioned only as permitted by the course instructor. As research on learning shows, peripheral use of technology in classes negatively impacts the learning environment in three ways:
 1. Individual learning and performance directly suffer, resulting in the systemic lowering of grades earned.
 2. In the classroom, one student's use of technology automatically diverts and captures other people's attention, thus impeding their learning and performance. Moreover, even minor infractions have a spillover effect and result in others doing the same.
 3. Subverting this policy (e.g., using a phone during class, even if hidden below the table or out of sight from your webcam; tapping on a smartwatch; using a laptop for non-course related matters) is evident to the course instructor and offensive to the principles of decorum in a learning environment.
- Networking, computing, and associated resources in the trading rooms, advanced technology rooms, and general classrooms are to be used in the manner intended.

- Sharing links to private online classes, attempting to join an online class you are not enrolled in, or posting disruptive content during these sessions are strictly prohibited and may lead to disciplinary action.
- For more instructions on information technology resources at Rutgers University, please refer to the [Acceptable Use Policy for Information Technology Resources](#).

Misappropriating Intellectual Property

- Almost all original work is the intellectual property of its authors. These works may include syllabi, lecture slides, recorded lectures, homework problems, exams, and other materials, in either printed or electronic form. The authors may hold copyrights in these works, which U.S. statutes protect. Copying this work or posting it online (on sites such as Chegg or Course Hero) without the author's permission may violate the author's rights. More importantly, these works are the product of the author's efforts; respect for these efforts and the author's intellectual property rights are important values that members of the university community take seriously.
- For more instructions on copyright protections at Rutgers University, please refer to the [Rutgers Libraries](#).

Rutgers Business School is committed to the highest standards of integrity. We value mutual respect and responsibility, as these are fundamental to our educational excellence inside and outside the classroom.