



## **Important Course Details**

### **Course Information**

- Course Number and Course Title: 33:136:470 Business Data Management
- Term and Year: Fall 2025
- Office Building & Room Number:
  - Livingston Campus: BRR-5066
  - Newark Campus: 1WP-1015A
- Class Building, Room Number, & Campus:
  - Section 1: BRR-5071, Livingston Campus
  - Section 2: BRR-5071, Livingston Campus
  - Section 5: TIL-253, Livingston Campus
- Class Meeting Times:
  - Section 1: Tuesday, Friday 10:20 am – 11:40 am
  - Section 2: Tuesday, Friday 12:10 pm – 1:30 pm
  - Section 5: Tuesday, 2-5 pm

### **Instructor Information**

- Title & Name of Instructor: Dr. Joann J Ordille, Associate Professor of Professional Practice
- Office Hours:
  - Livingston Campus Office, BRR-5066
    - Tuesday, 5:30 pm – 6:30 pm
    - Friday, 2:30 pm – 4:30 pm
  - Newark Campus Office, 1WP-1015A
    - Wednesday, 1:00 pm – 2:00 pm
  - Students can also attend these office hours via Zoom using the office hour link available on the Canvas home page.
- Email: jo531@scarletmail.rutgers.edu
- Office Phone Number:
  - 848-445-3243 on Livingston Campus
  - Use my Livingston office phone number to contact me during my Newark office hours.

### **Experiential Learning**

This course integrates experiential learning to connect academic concepts with real-world business applications. Learning methods deployed in this course include project-based work. These approaches enable students to apply theories to realistic scenarios, develop practical skills, and address complex business challenges.

## **Course Description**

Whether an enterprise is small or large, it can benefit from a database system. Even our cell phones use a modern database system, [SQLite](#), to organize our personal data including our phone contacts. While database systems are often designed to share data across many stakeholders, an individual can benefit from building a database to manage and analyze a business. The database system enforces consistency as it records the transactions of the business. It supports combining data from multiple business functions to discover new insights. Beyond traditional data analysis, databases are tools for collecting, managing and transforming data to prepare it for use in machine learning. In this course, we will explore how to design, create, administer and use database systems to foster business success.

This course focuses on relational database management systems, and their use in recording transactions of a business and making those transactions available for further analysis. The course will examine various architectures for running database systems from local copies on a laptop to cloud-based systems. It will also cover some aspects of noSQL (not only SQL) databases. Students will learn to analyze information in existing relational databases. They will learn to design, create and deploy a relational database system to meet business needs. In this course, class meetings will be a combination of lectures, discussion, and group exercises. The course textbook is an interactive text that combines reading with exercises to enhance learning. Students will build and manipulate databases on a local copy of [MySQL](#), [a top-ranked database system](#), installed on their laptops.

## **Course Delivery Mode**

All sections of this class are in-person.

## **Course Materials**

- Textbook: Database Systems with SQL and zyLabs, by Paul Winsberg et al. (zybooks.com), 2024. Purchase online using the class code distributed through Canvas, or through the bookstore.
- Additional readings are provided through the library. They are noted in the syllabus and provided via the reading list features in Canvas.
- [Echo Poll](#), an interactive engagement tool that is available free to RBS students, is used in class.
- Students install the free versions of MySQL Server and MySQL Workbench on their computers using instructions on [Professor Ordille's YouTube Channel](#) tailored to their type of computer. They also access MySQL through a course website or [the W3Schools MySQL Try It Editor](#) for testing.
- Students are directed to online tools to help them normalize databases.
- Check [Canvas at Rutgers](#) and your Rutgers Scarlet Mail email account regularly for course updates and announcements.

## **Learning Goals and Objectives**

- This course is designed to help students develop skills and knowledge in the following areas:

- Applied Knowledge and Understanding. Students graduating with a BS degree will have broad understanding of basic business theory and practice and deep understanding of theory and practice within their major field.
- Critical Thinking and Ethical Judgment. Students graduating with a BS degree will use critical thinking skills and ethical judgment when analyzing problems and making decisions.
- Diversity Awareness and Global Perspective. Students graduating with a BS degree will have the breadth of perspective necessary to succeed in a global and diverse business environment.
- Students who complete this course will demonstrate the following:
  - Applied Knowledge and Understanding.
    - Competency in the application of business knowledge to address business challenges.
    - Advanced expertise and proficiency within their major field.
    - Proficiency in the use and application of business software/tools, quantitative methods/modeling techniques, and other advanced tools/methodologies for effective business analysis and decision making.
  - Critical Thinking and Ethical Judgment.
    - Ability to evaluate unstructured business decision-making scenarios and develop innovative and ethical solutions.
    - Ability to apply analytical and critical thinking skills to solve problems.
  - Diversity Awareness and Global Perspective.
    - Ability to apply diverse ideas and global perspectives to solve business problems.
- Students develop these skills and knowledge through the following course activities and assignments:
  - Learning the tradeoffs between hierarchical, networked, relational and NoSQL models of database systems.
  - Learning how businesses benefit from deploying Online Transaction Processing (OLTP) and Online Analytical Processing (OLAP) systems.
  - Learning why businesses use data warehouses, data lakes, and data lake houses.
  - Learning the benefits and limitations of various database architectures including local, client-server, distributed, replicated and cloud-based systems.
  - Collecting requirements, modeling a relational database, and translating that model into a database design to meet a business need.
  - Learning how and why to apply constraints and transactions to the database to ensure data consistency and satisfy business rules.
  - Writing and interpreting SQL.
  - Using indexing and other techniques to improve relational database performance and efficiency.
  - Learning the steps necessary for identifying and satisfying security and privacy requirements.
  - Developing an understanding of the diversity of regional and global requirements for security and privacy, and how to implement them.

- Deploying a database server with appropriate security.

### Prerequisites

A formal prerequisite for this course is one of (33:136:370 or 33:623:370) Management Information Systems, or 33:010:458 Accounting Information Systems, all of which cover the needs that make database technology critically important to a business. Another formal prerequisite is being a junior or senior BAIT (136) major. In particular, BAIT majors must have already completed a course that introduces computer programming concepts. Students should be comfortable with designing, implementing and debugging programs as a prerequisite to this course. No prior knowledge of database management systems is required. The course goal is to bring those new to databases to a level of expertise where they can create and use databases effectively in a business environment. A desire to learn, initiative in seeking out course staff and resources to foster learning, and time for hands-on work are necessary.

### Tentative Course Schedule for Tuesday, Friday Sections<sup>\*</sup>

In the following table, Z is an abbreviation for the course textbook from zyBooks.com.

| Date  | Week | Day | Topic                                                                | Readings, Quizzes and Due Dates                                                                                                                                                                                                                                                          |
|-------|------|-----|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9/2   | 1    | 1   | Introduction to Course, Database Systems                             |                                                                                                                                                                                                                                                                                          |
| 9/5   | 1    | 2   | Introduction to Database Systems                                     | Z: 1                                                                                                                                                                                                                                                                                     |
| 9/9   | 2    | 1   | Relational Databases Overview, Introduction to MySQL                 | Z: 2.1-2.5, MySQL Installation Complete                                                                                                                                                                                                                                                  |
| 9/12  | 2    | 2   | Basic Data Queries                                                   | Z: 2.6                                                                                                                                                                                                                                                                                   |
| 9/16  | 3    | 1   | Null Values                                                          | Z: 2.7                                                                                                                                                                                                                                                                                   |
| 9/19  | 3    | 2   | Ted Codd Discussion, Data Manipulation                               | Z: 2.8, <a href="#">Ted Codd Bio</a> , <a href="#">Important Papers: Codd and the Relational Model</a> , and <a href="#">The abstract and first three sections of "Relational Database: A Practical Foundation for Productivity" by E. F. Codd for his 1981 ACM Turing Award Lecture</a> |
| 9/23  | 4    | 1   | Primary and Foreign Keys                                             | Z: 2.9, 2.10                                                                                                                                                                                                                                                                             |
| 9/26  | 4    | 2   | Referential Integrity, Constraints                                   | Z: 2.11, 2.12                                                                                                                                                                                                                                                                            |
| 9/30  | 5    | 1   | <b>Quiz 1</b>                                                        |                                                                                                                                                                                                                                                                                          |
| 10/3  | 5    | 2   | Special operators and clauses, Simple Functions, Aggregate Functions | Z: 3.1-3.3                                                                                                                                                                                                                                                                               |
| 10/7  | 6    | 1   | Joins                                                                | Z: 3.4, 3.5, <b>Individual Project Assigned</b>                                                                                                                                                                                                                                          |
| 10/10 | 6    | 2   | Subqueries, Complex Queries                                          | Z: 3.6, 3.7                                                                                                                                                                                                                                                                              |
| 10/14 | 7    | 1   | <b>Quiz 2</b>                                                        |                                                                                                                                                                                                                                                                                          |
| 10/17 | 7    | 2   | Views, Relational Algebra, Set Operations                            | Z: 3.8, 3.9                                                                                                                                                                                                                                                                              |

| Date  | Week | Day | Topic                                                                                        | Readings, Quizzes and Due Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------|------|-----|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10/21 | 8    | 1   | Database Design                                                                              | Z: 4.1-4.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10/24 | 8    | 2   | Database Design                                                                              | Z: 4.5, 4.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 10/28 | 9    | 1   | <b>Quiz 3</b>                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 10/31 | 9    | 2   | Implementing a Database Design, Case Study                                                   | Z: 4.7-4.9, Z: 12.1-12.7, <b>Phase 1 of Individual Project Due 11/2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 11/4  | 10   | 1   | Normalization                                                                                | Z: 4.10-4.12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 11/7  | 10   | 2   | Disk Characteristics, Indexes.                                                               | Z: 5.1-5.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 11/11 | 11   | 1   | <b>Quiz 4</b>                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 11/14 | 11   | 2   | More on Indexes                                                                              | Z: 5.4, 5.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 11/18 | 12   | 1   | Transactions                                                                                 | Z: 6.1, 6.2, 6.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 11/21 | 12   | 2   | Security                                                                                     | "Section 2: Accounts and Privileges" in <i>MySQL Installation and Configuration</i> by Bill Weinman on <a href="#">LinkedIn Learning</a> , <a href="#">IBM Article on Database Security</a> , " <a href="#">How Changes to Global Data Privacy Affect Your Database</a> " by Mat Keep of MongoDB, <a href="#">GDPR anti-patterns</a> by Supreeth Shastri, Melissa Wasserman, and Vijay Chidambaram in the <i>Communications of the ACM</i> , and <a href="#">The SQL Injection Game</a> by Johannes Schildgen and Jessica Rosin. |
| 11/25 | 13   | 1   | No Class. Change in Designation Day to Thursday classes.                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 11/26 | 13   | 2   | Class meets on Wednesday. Change in Designation Day to Friday. Topic: Database Architectures | Z: 7.1-7.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 11/27 |      |     | Happy Thanksgiving                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 11/28 |      |     | No class. Thanksgiving Break.                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 12/2  | 14   | 1   | TBD                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 12/5  | 14   | 2   | TBD                                                                                          | <b>Phase 2 of Individual Project Due 12/7</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 12/9  | 15   | 1   | Review                                                                                       | Classes end on Wednesday                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

\*Tentative schedule, subject to change. Later topics may be abbreviated if time does not allow full treatment. Check Canvas for the most up to date information on the schedule, readings and assignments.

### **Tentative Course Schedule for Tuesday Section\***

In the following table, Z is an abbreviation for the course textbook from zyBooks.com.

| Date  | Week | Topic                                                                                | Readings, Quizzes and Due Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------|------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9/2   | 1    | Introduction to Course and Database Systems                                          | Z: 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 9/9   | 2    | Relational Databases Overview, Introduction to MySQL, Basic Data Queries             | Z: 2.1-2.6, MySQL Installation Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 9/16  | 3    | Null Values, Ted Codd Discussion, Data Manipulation                                  | Z: 2.7-2.8, <a href="#">Ted Codd Bio</a> , <a href="#">Important Papers: Codd and the Relational Model</a> , and <a href="#">The abstract and first three sections of "Relational Database: A Practical Foundation for Productivity" by E. F. Codd for his 1981 ACM Turing Award Lecture</a>                                                                                                                                                                                                                                                       |
| 9/23  | 4    | Primary and Foreign Keys, Referential Integrity, Constraints                         | Z: 2.9-2.12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 9/30  | 5    | <b>Quiz 1</b> , Special operators and clauses, Simple Functions, Aggregate Functions | Z: 3.1-3.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10/7  | 6    | Joins, Subqueries, Complex Queries                                                   | Z: 3.4-3.7, <b>Individual Project Assigned</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 10/14 | 7    | <b>Quiz 2</b> , Views, Relational Algebra, Set Operations                            | Z: 3.8, 3.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10/21 | 8    | Database Design                                                                      | Z: 4.1-4.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10/28 | 9    | <b>Quiz 3</b> , Implementing a Database Design, Case Study                           | Z: 4.7-4.9, Z: 12.1-12.7, <b>Phase 1 of Individual Project Due 11/2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11/4  | 10   | Normalization, Disk Characteristics, Indexes                                         | Z: 4.10-4.12, 5.1-5.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 11/11 | 11   | <b>Quiz 4</b> , More on Indexes                                                      | Z: 5.4, 5.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 11/18 | 12   | Transactions, Security                                                               | Z: 6.1, 6.2, 6.5, "Section 2: Accounts and Privileges" in <i>MySQL Installation and Configuration</i> by Bill Weinman on <a href="#">LinkedIn Learning</a> , <a href="#">IBM Article on Database Security</a> , " <a href="#">How Changes to Global Data Privacy Affect Your Database</a> " by Mat Keep of MongoDB, <a href="#">GDPR anti-patterns</a> by Supreeth Shastri, Melissa Wasserman, and Vijay Chidambaram in the <i>Communications of the ACM</i> , and <a href="#">The SQL Injection Game</a> by Johannes Schildgen and Jessica Rosin. |
| 11/25 | 13   | No Class. Change in Designation Day to Thursday classes.                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 11/27 |      | Happy Thanksgiving                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 12/2  | 14   | TBD                                                                                  | <b>Phase 2 of Individual Project Due 12/7</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 12/9  | 15   | Review                                                                               | Classes end on Wednesday                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

**\*Tentative schedule, subject to change. Later topics may be abbreviated if time does not allow full treatment. Check Canvas for the most up to date information on the schedule, readings and assignments.**

## **Important Dates**

Important dates for the Fall 2025 Semester from the [RBS Academic Calendar](#):

- Start of Classes: Tuesday, September 2, 2025
- End of Drop/Add Period: Thursday, September 11, 2025
- Last Day to Withdraw with a W Grade: Monday, October 27, 2025
- Thanksgiving Break: Thursday, November 27 – Sunday, November 30, 2025
- End of Classes: Wednesday, December 10, 2025
- Exam Schedule: See the [Exam Dates and Policy Section](#).

## **Course Expectations**

### **Feedback and Response Expectations**

- If you have a question that you think is shared by your classmates, please ask the question by posting a discussion topic on Canvas. I will answer your question there, so everyone will learn the answer. You can download a Canvas app for your cell phone, so you can participate in discussions from anywhere.
- An email to my Scarlet Mail address ([jo531@scarletmail.rutgers.edu](mailto:jo531@scarletmail.rutgers.edu)) is the best way to reach me about our course. Unlike Canvas Direct Messages, Scarlet Mail provides context for continuing conversations. Emailing [joann.ordille@rutgers.edu](mailto:joann.ordille@rutgers.edu) might result in a response delay, because it does not notify my cell phone. Scarlet Mail does notify my cell phone.
- Set up Canvas to notify you of course announcements. Check Canvas often. You are responsible for meeting the deadlines and fulfilling the requirements posted on Canvas and in our online course zyBook.
- I will email you at your Scarlet Mail address. If you do not have a Scarlet Mail address, visit [NetID Management and Service Activation](#) to set one up. You can also use this website to have your Scarlet Mail forwarded to your preferred email address.
- Email/Direct Messaging Response Times: I will do my best to respond to your emails quickly, often within hours, but at a maximum within 24 hours weekdays and 48 hours on weekends. During Thanksgiving Break, email responses may be delayed until class resumes. Please remind me if you do not hear back from me within this time.
- Graded Materials Return Times: Many of your assignments will be automatically graded by zyBooks. Similarly, most of your quiz and exam questions will be graded automatically by Canvas. Since I have several large classes, the grader and I will strive to have your other assignments and tests graded within two weeks but three weeks may be required.
- In this course you will be expected to complete several tasks including:
  - doing online zyBooks reading and assignments on time
  - downloading and uploading documents and code using Canvas
  - accessing online resources including tools, articles, tutorials, and videos

- o creating videos
- o communicating via Canvas Discussions
- o completing synchronous quizzes and the final exam via Canvas using the Respondus Lockdown Browser
- o participating in discussions and activities in in-person class meetings
- o using [Echo Poll](#) on a cell phone or laptop to participate in class discussions
- o installing MySQL and completing MySQL assignments/projects

## Attendance and Preparation

- Learning is a joint responsibility of teacher and student. Both teachers and students are expected to prepare for and attend class, and actively participate in the learning process. If I will miss class, my department chair or I will send you notice via email and Canvas as far in advance as possible. During inclement weather, always check Canvas announcements before travelling to class.
- If you need to miss class, please report your absence in advance using the [Student Self-Reporting Absence System](#) (SSRA). If your absence is due to religious observance, a Rutgers-approved activity, illness, or family emergency/death and you seek makeup work, also send me an email with full details and supporting documentation within two days of your first absence. If you miss an exam or quiz without first negotiating other arrangements, you will NOT be entitled to a make-up and will receive a zero UNLESS you can provide documentation of illness or a family emergency. Excused absences will not be counted toward your attendance grade.
- Expect me to arrive on time for each class session. I expect the same of you.
- Expect me to remain for the entirety of each class session. I expect the same of you.
- Expect me to prepare properly for each class session. I expect the same of you. Complete all background reading and assignments. You cannot learn if you are not prepared. The minimum expectation is that for each 1 to 3 hour class session, you have prepared by studying for at least twice as many hours.
- The zyBook provides an interactive learning experience. There are participation activities that you will need to complete in doing the assigned reading to prepare for class. There are also challenge activities that you need to complete. Additional assignments may also be assigned. The percentage of the assignments completed correctly will determine your Class Participation and zyBook Class Prep Homework Grade, worth 8% of your final grade. Since these assignments are to prepare for and participate in class, the grading scheme rewards timeliness and penalizes lateness, see the [Grading Policy Section](#).
- Actively engage in class learning by asking or answering questions, expressing an opinion about a topic of discussion, meeting with me during office hours, interacting with me or other class members through Canvas, participating in your team and reporting on activities in a project or other activity. Stay focused and involved. You cannot learn if you are not paying attention.
- Reflect on your learning process. What do you understand? What is unclear? Seek clarity and understanding. Consult class resources, reach out in class, through email, or during office hours to find answers to your questions and build your knowledge and skills to achieve success.

## **Classroom Conduct**

Research has shown that students learn better in a community with their peers. We hope to help you form that community by creating lightweight teams that will collaborate in various course activities. The teams are lightweight, because they are for learning collaboratively without a lot of grade stress. Your contribution to your team counts for 2% of your final grade. You are required to sit in class with your lightweight team. While you are allowed to discuss individual assignments with your lightweight team or other classmates, the work you submit for individual assignments must be your own. To avoid violations of academic integrity (see the [Academic Integrity Section](#)), have a general discussion of concepts, design approaches or debugging techniques and then complete the assignment when alone.

In class, we will sometimes have active review sessions. A series of students may be called upon (cold called) to answer Database Flash Card questions. If you do not know the answer, you are permitted to pass.

Each student will be asked to create a name card during the first week of class. You are expected to display your name card during each class, quiz and exam. If you do not display your name card, you will lose your credit for attending class that day.

[Echo Poll](#) questions may be asked during class. If you fail to participate in the Echo Poll questions, you will be marked absent for the day.

## **Course Policies**

### **Exam Dates and Policies**

There are four quizzes and one cumulative final exam in this course:

- Quizzes are in person during class on 9/30, 10/14, 10/28, and 11/11. Quiz dates may be adjusted if the class falls behind the pace of the syllabus.
- The final exam will be in-person at the time specified by the registrar. The date and time for the final exam will be updated when the registrar posts the schedule online at [Final Exam Schedules](#). Unless announced otherwise, the exam will be held in our assigned room for the term. Rutgers-New Brunswick students can view their exam schedule on their myRutgers dashboard, see [Final Exams – Academic Scheduling](#) for more information.

During quizzes exams, the following rules apply:

- In-person quizzes and the final exam are closed book with restricted online access enforced by the Respondus Lockdown Browser.
- If you qualify for any accommodation that will influence testing procedures, have the Office of Disability Services send me a letter at the start of the semester. Reach out to discuss the accommodation with me.
- All tests are in-person.
- You must show a valid Rutgers photo ID to take and turn in the exam.
- If you take all or part of an in-person test while not present in class in person, you will be reported for a violation of academic integrity and receive a zero for the test.

- If you leave the classroom without submitting your test, it will be considered an attempt to complete the test online while not present in class. You will be reported for a violation of academic integrity and receive a zero for the test.
- There are no situations that qualify for taking a test while not present in-person. If you cannot take the test in-person at the scheduled time, an in-person makeup test may be granted in accordance with policy explained in the [Attendance and Preparation Section](#).
- If you are granted a makeup quiz or exam, the test may have a different format from the one given to the class at the discretion of the instructor. The test might, for example, be comprised only of questions requiring you to write SQL, or it might be an oral exam.
- The Rutgers Business School Dean's Office has informed the faculty that incompletes are only to be given for documented cases that prevent you from completing requirements of a course. The first step in producing such documentation is to visit the Dean of Students Office and ask for help. See [Requesting Assistance from the Dean of Students](#) for more information on requesting help.
- If you miss the final exam and do not have permission to receive an incomplete from the Dean of Students, you will be given a zero, and a final grade will be assigned in lieu of an incomplete. If a makeup final is granted, you will need to take the final in person at a time convenient to your instructor, typically at the start of the next term. After the final is completed and graded, your grade in the course will be updated.
- In the instructions for each test, the test will explicitly list the permitted material and technologies that you can use when taking the test. If you access any material or technology that is not permitted, you will be reported for a violation of academic integrity and receive a zero for the test.
- You can only use authorized technologies during a test. For example, smart glasses are not permitted. If you need prescription lenses, be sure to obtain a classic pair of glasses that does not include any type of smart technology. If you use any unauthorized technologies, such as cell phones, smart glasses or earpieces, during the test, you will be reported for a violation of academic integrity and receive a zero for the test.
- Cell phones must be turned off and placed in front of you face down during the test.
- Use the bathroom prior to the test start time.
- Your test will receive a grade of zero if you do not sign the Honor Pledge.

## Grading Policy

Course grades, including final grades, will be posted on Canvas. Grades are determined based on the following categories of work:

- **Class Attendance.** Attendance will be taken with the Qwickly Service in Canvas. If a class includes Echo Poll interactions and you do not participate in those interactions, your attendance grade will be changed to absent for that day. If you do not display your name tag, your attendance grade will be changed to absent for that day. Your attendance grade will be the percentage of class meetings for which you are marked present. Excused absences will not be counted toward your grade.
- **Professionalism.** If you conduct yourself professionally all term, you will earn full credit for 2% of your final grade. Failure to act professionally will reduce your grade by 1 or 2 points depending on the severity of the failure. Professional conduct includes respect

for other members of the class. It also includes taking full responsibility for your part in the class. Your conduct will be evaluated using the following guideline: Would your supervisor in a company find your conduct exemplary in progressing the work of the organization or an unnecessary hindrance to progress? For more information on professional conduct, see the [Student Code of Professional Conduct Section](#).

- **Lightweight Team Participation.** As described in the [Classroom Conduct Section](#), you will be assigned to a lightweight team for learning collaboratively with your peers. Your contribution to your team counts for 2% of your grade. Your lightweight team will also function as your reading group. One or more times during the semester, you will read articles about databases, and meet with your lightweight team to discuss them using questions I supply as a starting point. Your group will be responsible for submitting a summary of your discussion in writing before the class meets to discuss the articles with me. You may also want to meet with your lightweight team to study for quizzes and the exam.
- **Class Participation and zyBook Class Prep Homework.** As described in the [Attendance and Preparation Section](#), you will read and do participation and challenge exercises in the zyBook to prepare for class. There will also be short assignments to increase class participation which will be counted in this category. The percentage of the assignments completed successfully will be your grade in this area, which is worth 8% of the final course grade.
  - **What if I'm late handing in Class Participation and zyBook Homework?** Since these assignments help you prepare for and participate in class, you receive 60 points for timeliness at the beginning of the semester. These points assume that you will complete everything on time. If you do not achieve 80% completion of the assignment on time, 2 timeliness points will be deducted each week you are late, and your assignment deadline will be extended one week. This process continues until you achieve at least 80% on the assignment. The penalty for lateness is the timeliness point deduction. You will receive whatever points you earn on the assignment as your assignment grade.
  - If you achieve at least 80% on the assignment, your deadline will be extended once only for one week to give you a chance to attend office hours for help and achieve 100%. If you fail to complete the remaining parts of the homework within the week extension, your grade on that homework is then final.
  - The timeliness points are averaged with your grade in this category. For example, while we cannot know the exact number of points for this semester's assignments, a previous semester had 906 points in this category without the timeliness points. If you earned all 906 points for the assignments and were 30 weeks late on a combination of assignments (losing 60 timeliness points) over the course of the term, your grade in this category would be 94%. Note that the timeliness credit also supports your grade. If you earned 80% of the 906 points by doing all the assignments on time, your grade in this category would be 81%.
  - If you expend all the timeliness points, you will NOT receive credit for additional late assignments.

- **Other Homework.** Other homework assignments include zyLabs assignments in the zyBook which typically involve hands-on database work and written exercises. These will be listed in Canvas to help all of us track them. Completing this homework will deepen your understanding, and assist you in preparing for projects and tests. This part of the course is worth 13% of your grade.
  - **What if I'm late handing in Other Homework?** Since these assignments help you deepen and consolidate your learning, you receive 30 points for timeliness at the beginning of the semester. These points function similarly to the description for the previous category except that each week of extension costs you one point.
  - For example, while we cannot know the exact number of points for this semester's assignments, a previous semester had 250 points in this category without the timeliness points. If you earned all 250 points for the assignments and were 30 weeks late over the course of the term, your grade in this category would be 89%. Note that the timeliness credit also supports your grade. If you earned 80% of the 250 points by doing all the assignments on time, your grade in this category would be 82%.
  - If you expend all the timeliness points, you will NOT receive credit for additional late assignments.
- **Individual Project.** There will be an individual project that requires you to load data into MySQL from files, clean and integrate that data, and then analyze the data. You will submit the project in two phases. The first phase will include the loading, cleaning and integration of the data. The second phase includes the remainder of the project, which is the data analysis. The source data for the project will be provided to you. The goal of this project is for you to sharpen your SQL skills and gain experience in a realistic data analysis project. This project is worth 15% of your grade.
  - **What if I'm late handing in the Individual Project?** The first phase of the project must be submitted on time (or within the 3-day grace period after the deadline) if you wish to receive credit. After the grace period, the correct database will then be made available, so that everyone can use the same base for the analysis part of the project. To summarize, the following penalties apply for late submission of the first phase:
    - 3 days late, grace period with no points off
    - 4 days or more late, no credit

With respect to the analysis (2nd) phase of the project, the following penalties apply for late submission:

  - 3 days late, grace period with no points off
  - 4-5 days late, 3% off per day
  - 6th day late, 4% off
  - 7-12 days late, 5% off per day
  - 13 or more, 10% off per day until no points are available and the grade is zero.

The following chart summarizes what deduction will be given for the number of total days late.

| Days Late | Cumulative Deduction                    |
|-----------|-----------------------------------------|
| 1-3       | Grace Period, No Points Off             |
| 4         | 3%                                      |
| 5         | 6%                                      |
| 6         | 10%                                     |
| 7         | 15%                                     |
| 8         | 20%                                     |
| 9         | 25%                                     |
| 10        | 30%                                     |
| 11        | 35%                                     |
| 12        | 40%                                     |
| 13        | 50%                                     |
| 14        | 60%                                     |
| 15        | 70%                                     |
| 16        | 80%                                     |
| 17        | 90%                                     |
| 18        | 100% which is a zero for the assignment |

- **Four Bi-Weekly Quizzes.** There will be a quiz every other week for 8 weeks starting in Week 5. The date for a quiz (and subsequent quizzes) may be adjusted (delayed) if the topic area for the planned quiz has not been completed. All quizzes will be on the first meeting day of the week. Quizzes will last the entire period for Tuesday-Friday classes, and half the period for Tuesday classes. The average of the quizzes is 29% of the final grade. The lowest quiz grade will be dropped in calculating the overall average for the quizzes.
- **Final exam.** The final exam will be in person at the time specified by the registrar. It is cumulative and worth 29% of your grade.

The following table summarizes how each category of work contributes to your final numerical grade:

| Category of Work                                   | Percentage of Grade |
|----------------------------------------------------|---------------------|
| Class Attendance                                   | 2%                  |
| Professionalism                                    | 2%                  |
| Lightweight Team Participation                     | 2%                  |
| Class Participation and zyBook Class Prep Homework | 8%                  |
| Other Homework                                     | 13%                 |
| Individual Project                                 | 15%                 |
| Bi-Weekly Quizzes                                  | 29%                 |
| Final Exam                                         | 29%                 |

Grades will be assigned as follows from your final numeric grade:

- A: 90-100
- B+: 85-89

- B: 80-84
- C+: 75-79
- C: 70-74
- D+: 65-69
- D: 60-64
- F: 0-59

Warning grades will be sent to alert those who are in danger of failing at the middle of the term along with suggestions for improving the likelihood of passing. Reach out to me if you receive a warning grade.

Do NOT assume that I will curve this course. Even when I have curved a course, the range for A grades did not change by a substantial amount. I only curve in response to statistical analysis of the entire class. I will not curve to pass one student or to give one student an A.

If you are aiming for a particular grade, make sure you earn enough points during the semester to achieve that grade. It is foolish to ignore the reading, homework, and project assignments, and then realize at the end of the course that you need them to achieve your desired grade. Plan for how you will approach the course to achieve the points you need.

Other important notes:

- In addition to the ability to answer homework type problems, questions on the quizzes and final exam will also test your conceptual understanding of database systems. Are you able to synthesize solutions to new problems from what you have learned?
- The project cannot be assigned until the requisite material has been covered in class. Be prepared to do the individual project during a period of approximately 6 weeks in the final 8 to 9 weeks of class.
- There is NO extra credit. Plan to earn enough points to pass the course. Be sure to study for the quizzes and the final exam by closing all books and testing yourself.
- Grades will be posted on Canvas. Time for returning grades is discussed in the [Feedback and Response Expectations Section](#).
- At midterm, warning grades will be sent to those currently earning less than a C grade.
- While I am happy to discuss questions you have about an assignment and give general advice, I will not pre-grade your assignment. You need to be able to identify and submit high quality work. No one in a company will pre-grade your work.
- Grades are not subject to negotiation. If you feel we made an error, submit your written argument to me within one week of receiving your grade, including your final grade. Clarify the precise error made and provide supporting documentation. If we made an error in grading, I will gladly correct it.

### **Artificial Intelligence Use**

Use of AI such as ChatGPT is only permitted to help you brainstorm ideas and see examples. All material you submit for assignments must be your own. Use of AI such as ChatGPT is not permitted during quizzes or exams.

Be aware that AI software, such as ChatGPT, may give a false answer to an assignment, or a truthful statement that does not satisfy the requirements of the assignment. Using either of these types of answers would lose full or partial credit on the assignment. You are responsible for the correctness and appropriateness of your answers, not ChatGPT.

Handing in assignments that are generated by AI is a violation of this policy and of the academic integrity policy. Since you are responsible for completely understanding and creating any assignment that you submit and not just handing in something you find somewhere or generate with AI, you may be tested on the content of your submission. For example, if you submit an answer that uses the SQL PARTITION BY clause, your quiz or exam may test your understanding of that clause.

## **Academic Integrity**

I do **not** tolerate cheating or academic dishonesty of any kind. Students are responsible for understanding and adhering to the [Rutgers Academic Integrity Policy](#). 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.” Failure to sign the honor statement will result in a zero for the quiz, examination or assignment. I will screen all written assignments through 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 the [RBS Academic Integrity Resource Page](#) for more details.

## **Student Code of Professional Conduct**

Rutgers Business School is recognized for its high-quality education. Maintaining the caliber of classroom excellence, whether in person or online, requires students to adhere to the same behaviors that are expected in professional career environments. These include the principles outlined in the [RBS Student Code of Professional Conduct](#).

## **Support Services**

### **Technology Support and Information**

- Learning Management System: [Canvas at Rutgers University](#)
- Hardware and software requirements:
  - a webcam for recording an introductory video,
  - a cell phone with web browser or a laptop in class to participate in online interactions and discussions using Echo Poll or Canvas,
  - a laptop in class for pre-announced working sessions or taking quizzes/exams,
  - at least 75 MB on Windows or 120 MB on Macs to install the Respondus Lockdown Browser, and
  - at least 1 gigabyte of free space on a Windows laptop or Mac to install MySQL. If you do not have 1 gigabyte free, consider transferring some files, e.g. pictures and videos, to a USB drive or Google Drive until the end of the semester.

- Below are the minimum hardware requirements recommended by OTIS. These specs will allow student systems to capably support a full Windows or macOS environment with Office 365, RBS course-specific applications, and virtual computing environments:
  - Intel® Core™ i5 processor (10th generation or newer) or Apple M1 (or newer) processor
  - Windows 11 Professional, or macOS 11 (Big Sur) or newer
  - 8 GB of RAM (16 GB recommended)
  - 256 GB solid-state drive (SSD) or larger
  - 720p HD webcam (1080p recommended)
  - Internal microphone
  - Reliable internet connection (broadband, 10 Mbps download or higher)
- Students can download most required software from the [Rutgers University Software Portal](#). From the software portal, Mac and Windows users can download Microsoft Office, which includes PowerPoint. Class slides will be distributed in PowerPoint.
- Zoom. Zoom will be used if class must move online for some reason. It is also available to you if you are ill and cannot attend class in person. When using Zoom, use your RU Zoom account. Instructions for activating and signing in to a Rutgers Zoom Account are:
  - [Instructions for Activating Your Rutgers Zoom Account](#)
  - [Instructions for Signing into Your Rutgers Zoom Account](#)
- Technology Support
  - If you experience any technology issues, please contact [Rutgers Business School Office of Technology and Instructional Services](#) (OTIS), which offers extensive support coverage from 8:00 a.m. to 8:00 p.m., Monday through Friday
  - You can reach OTIS by emailing [helpdesk@business.rutgers.edu](mailto:helpdesk@business.rutgers.edu)

## Financial Support Resources

- RBS New Brunswick students in need of financial assistance can email the Dean of Students Office at [deanofstudents@echo.rutgers.edu](mailto:deanofstudents@echo.rutgers.edu)

## Disability Policy and Resources

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 is available on the [Rutgers Office of Disability Services Website](#).

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

If you are experiencing a temporary condition or injury that is affecting your ability to fully participate in class, you should [submit a request for support through the Rutgers Temporary Conditions Website](#).

## **Title IX Resources**

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: Contact the Title IX Coordinator by phone at (848) 932-8200 or email [jackie.moran@rutgers.edu](mailto:jackie.moran@rutgers.edu)

## **Religious Accommodations**

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: Contact the Dean of Students Office at (848) 932-2300 or email [deanofstudents@echo.rutgers.edu](mailto:deanofstudents@echo.rutgers.edu)

## **VPVA and Harassment**

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 is available on the [Rutgers Office for Violence Prevention and Victim Assistance Website](#) (VPVA).

- Rutgers University–New Brunswick: To report a concern or incident, use the [Student Conduct Concern Reporting Form](#). You may also contact the Office for Violence Prevention and Victim Assistance (VPVA) at (848) 932-1181.

## **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.

- [Report a New Brunswick Bias Incident](#)

## **Veteran and Military Services**

If you are a military veteran or currently on active duty, you can obtain support through the [Rutgers Office of Veteran and Military Programs and Services](#).

## **Mental and Physical Health Services**

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

- [Rutgers Counseling and Psychological Services – New Brunswick](#)

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

- [Rutgers Health Services – New Brunswick](#)

## **Legal Support**

If you are in need of legal assistance, please visit the Rutgers University Student Legal Services website to access support and resources.

## **Academic Support Services**

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

- 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–New Brunswick Learning Centers](#)

## **Digital Accessibility Statement**

Rutgers University is committed to ensuring that all digital course materials and technologies are accessible to every student. If you experience any difficulty accessing content used in this course, please contact me by email at [jo531@scarletmail.rutgers.edu](mailto:jo531@scarletmail.rutgers.edu) so that the necessary support can be provided.