

**SYLLABUS SPRING 2025**  
**ISM 671-03: Organizing Data for Analytics**  
(online)

**Instructor:** Sujin Park

**Email:** s\_park12@uncg.edu

**Office hours (virtual):** Thursday 5:00–6:00 pm. (Note: If your time conflicts with the specified office hours, you can send an email to hold another meeting on a different date and time.)

**Teaching Assistant:** Marvin Lomo (Email: malomo@uncg.edu)

**Catalog Description**

Fundamental concepts of database management systems, including database design, implementation, and the use of the SQL query language (3 credit hours).

**Course Objectives and Student Learning Outcomes**

In this course, we address the design of databases and the use of database management systems (DBMS). Since data becomes an intrinsic part of our lives, it is important to understand how data is stored and managed. Data needs to be collected, stored, archived, retrieved and processed in an organized way such that it can be utilized for better insights. Many databases and DBMSs support such a need. In the class, we aim to foster an understanding of and skills in database design and its implementation. Specifically, the objective of this course can be summarized into two-fold, as follows:

1. Develop an understanding of the conceptualization of database management systems and data models and
2. Enhance skills to implement and manage database systems using SQL query language

Upon successful completion of the course, students will be able to:

1. Model database requirements using the Entity-Relationship diagram.
2. Apply the concepts of normalization in database design.
3. Design and implement a relational database.
4. Address issues related to concurrent data access.
5. Apply methods to address various database security issues.
6. Express queries using relational algebra.

**Required Materials**

- Textbook (Main)  
Carlos Coronel and Steven Morris. *Database Systems: Design, Implementation, & Management*. 14<sup>th</sup> edition (978-0357673034) or 13<sup>th</sup> edition (ISBN: 9781337627900).
- Textbook (Optional)  
Jukic, N., Vrbsky, S., and Nestorov, S. *Database systems: Introduction to databases and data warehouses*. 2<sup>nd</sup> Edition, Prospect Press, 2021 (ISBN (eBook)): 978-1-943153-67-1).

- MySQL Database Management System  
This will be our primary working environment. Instructions on installation and use of the software will be provided in the course.
- Canvas Course Management Systems (<https://canvas.uncg.edu>)  
Course materials, announcements, and updates will be posted on Canvas regularly. Students are required to check Canvas daily and will be responsible for any information or announcements posted on Canvas.

### Grading

Individual Assignments	25%
Quizzes and Discussion	10%
Group Project	20%
Midterm Exam	20%
Final Exam	25%
Total	100%

Final letter grades will be given based on the following grading scale:

Points	Grade
93-100%	A
90-92%	A-
87-89%	B+
83-86%	B
80-82%	B-
77-79%	C+
70-76%	C
Below 70%	F

- Your total score will be rounded up; For example, if your total is 89.2%, your letter grade will be B+.

### Class Policies

- There is **NO** makeup or rescheduled assignments/quizzes/exams if anyone misses. The only exception is an emergency case, such as medical situations or immediate family loss. In this case, you are **required to submit proof of document** and contact the instructor **BEFORE** the deadline.
- A "Group" project is a group's work. If students are not willing to contribute to the group work and are not cooperative (e.g., lack of communication or less/late work) with the group project, he/she will be identified as free riders. If reported by other group members, a letter grade goes down regardless of the situation.
- All the assignments are due by 11:59 pm on the scheduled due date. It is the student's responsibility to be aware of deliverable due dates. **Makeup assignments** will **NOT** be given. **Late submissions** will **NOT** be accepted, but if a valid excuse exists (e.g.,

emergency and natural disaster, NOT any personal reasons), there will be a minimum of a 20% reduction for EACH day late. It is the responsibility of the student to notify the instructor promptly (in advance if possible) of any issue that may impact the completion of any work by the scheduled completion date.

- Your email will be responded to **in 48 working hours**. During vacation, conference travel, or weekend hours, responses may take longer.

### **Students Responsibility**

- *Canvas*: All related resources, including course materials, assignments, and announcements, will be posted on Canvas. Students are highly encouraged to check Canvas regularly.
- *iSpartan email*: In addition, the course updates will be communicated through UNCG iSpartan email. Students are responsible for checking those updates regularly on your own.
- *End-semester course evaluation*: Students are highly encouraged to complete an online course evaluation near the end of the course. This evaluation is important to the instructor and the university in our efforts to continually improve the delivery of our courses.

### **Guidelines For Ethical and Professional Behavior Of Students and Faculty**

The administration, faculty, staff, and students of the Bryan School of Business and Economics at UNCG are committed to ethical and professional behavior in all areas of their academic and professional lives. The values, principles and expectations established in this document and the addendums encompass many aspects of professional behavior and integrity. It is not an exhaustive list, since change is part of life both inside and outside the university. It is further noted that all expectations and principles discussed in this document apply to all modes of communication or course delivery.

This set of Guidelines constitutes a statement of values, principles, and expectations; concerns and issues are still best addressed by conversations between the individual faculty member and student. If further discussions are necessary, Department Heads may be contacted by either faculty or students.

Complete guideline can be found at: <https://bryan.uncg.edu/wp-content/uploads/2023/11/Faculty-and-Student-Guidelines-2018-2019.pdf>.

### **Academic Integrity Policy**

University students are expected to conduct themselves in accordance with the highest standards of academic honesty. A student is subject to penalty for academic misconduct, such as illicit possession of exams or exam materials, forgery, or plagiarism. Plagiarism is the presentation of the work of another, as one's own work. Discussing your assignments with other students can be a valuable learning resource; however, each student is expected to do their own original work. It is the student's responsibility to prove their work is original, if challenged.

By submitting an assignment, each student is acknowledging their understanding and commitment to the Academic Integrity Policy on all major work for the course (please take your

time to review the Academic Integrity Policy if you are not comfortable with by using the following link: <https://osrr.uncg.edu/academic-integrity-policy-pledge/>).

### **Generative AI Use Policy**

We expect that all work students submit for this course will be their own. In instances when collaborative work is assigned, we expect for the assignment to list all team members who participated. We specifically forbid the use of generative artificial intelligence (GAI) tools at all stages of the work process, including preliminary ones. Violations of this policy will be considered violations of the Academic Integrity policy. We draw your attention to the fact that different classes may implement different GAI policies, and it is the student's responsibility to conform to expectations for each course. (Adapted from Harvard University)

### **Academic Accommodations/ADA Statement**

UNCG seeks to comply fully with the Americans with Disabilities Act (ADA). Students requesting accommodations based on a disability must connect with the Office of Accessibility Resources and Services (OARS) in 215 Elliott University Center, (336) 334-5440, oars.uncg.edu. OARS staff can meet with you to discuss the barriers you are experiencing and explain the eligibility process for establishing academic accommodations.

### **Absences for University-Sponsored Activities**

The university recognizes the importance of certain extra-curricular and co-curricular activities (including travel days) that enhance student learning, personal development, and professional growth. Instructors will excuse absences of students for participation in University-sponsored events under the following conditions:

1. Students who expect to miss one or more class meetings due to participation in University-sponsored activities should:
  - a) Notify the instructor(s) at least five class days in advance;
  - b) Arrange to complete all missed work in advance of the absence whenever practicable as judged by the instructor(s). When missed work cannot be completed in advance, the instructor(s) should provide students with the opportunity to make up the work. Students should be aware, however, that not all kinds of work can be made up. The instructor(s) have the discretion to deny makeup work if (i) alternative assignments place an unreasonable demand on the instructor, (ii) the original assignment is such that not completing it at the originally assigned time impedes student learning
  - c) Present relevant documentation of participation in a relevant University-sponsored activity to the instructor(s) upon request.

Students who expect to miss more than three class periods of any single course of any kind in a term or more than two consecutive meetings of a laboratory course in order to participate in University-sponsored activities should inform the instructor at the beginning of the course. In the case that the faculty member cannot make reasonable accommodations for makeup work, the student may appropriately be advised to drop the course.

**Course Schedule (It is tentative and subject to changes)**

<b>Week</b>	<b>Dates</b>	<b>Topics</b>
1	Jan 13-Jan 19	Course Introduction and Chapter 1
2	Jan 20-Jan 26	Chapter 2
3	Jan 27-Feb 02	Chapter 3
4	Feb 3-Feb 09	Chapter 4
5	Feb 10-Feb 16	Chapter 5
6	Feb 17-Feb 23	Chapter 6
7	Feb 24-Mar 02	Chapter 7-1
8	Mar 03-Mar 09	<b>Midterm Exam</b>
	Mar 10-Mar 16	Spring break; <b>No classes.</b>
9	Mar 17-Mar 23	Chapter 7-2
10	Mar 24-Mar 30	Chapter 8-1
11	Mar 31-Apr 06	Chapter 8-2
12	Apr 07-Apr 13	Chapter 10
13	Apr 14-Apr 20	Chapter 13
14	Apr 21-Apr 27	Chapter 14
15	Apr 28-May 04	Chapter 16
16	May 05-May 07	<b>Final Exam</b>

Note: the syllabus operates as our document of mutual understanding; it represents our agreement. Changes may be made to it as our progress dictates. Such changes will be discussed in class and class members will be responsible for all changes.