COURSE INFORMATION

Course title:	Data Management for Business Analytics		
Course code:	BAIT 507	Credits:	1.5
Session, term, period:	Fall 2023, Period 2	Class location:	HA435
Section(s):	BA1, BA2	Class times:	BA1: Mon/Wed 10am-12pm
			BA2: Mon/Wed 2pm-4pm
Course duration:	Oct 30, 2023 to Dec 01, 2023	Pre-requisites:	N/A
Division:	AIS	Co-requisites:	N/A
Program:	MBAN		

INSTRUCTOR INFORMATION

Instructor:	Ning Nan, PhD		
Phone:	604-827-3260	Office location:	HA368 or in Zoom (see link below)
Email:	ning.nan@sauder.ubc.ca	Office hours:	Tue 10am-10:50am, or by appointment

Zoom Office hour link:
https://ubc.zoom.us/j/69124661293?pwd=NTlGUVBzNmRLRHk5aUowZEtZeDA1UT09
Meeting ID: 691 2466 1293
Passcode: 326444

COURSE DESCRIPTION

This course introduces theory and technology of database management for business analytics. It covers the fundamentals of databases, data designs for business analytics, data access using structured query language (SQL), and design interfaces facilitating user-centric access and queries. In addition to covering these fundamentals about data management, this course also aims to prepare students for relevant job interview questions.

COURSE FORMAT

Classes consist of two in-person sessions per week of two hour each. Classes will require attendance in-person. Instructor will use the classroom lectures and software walkthroughs to build an understanding of key concepts. Please bring your laptops to class as we will be using software to write and test SQL queries.

LEARNING OBJECTIVES

By the end of this course, students will be able to:
1. Create and manipulate a database using SQL.
2. Develop conceptual data models using entity-relationship diagrams.
3. Develop relational schemas from entity-relationship diagrams.
4. Effectively prepare for SQL questions in real-world job interviews.
5. Become familiar with alternative database technologies like NoSQL, graphs, etc.

ASSESSMENTS

Summary

Component	Weight
Assignments	20%
Quizzes	20%
Participation	10%
Final exam	50%
Total	100%

Details of Assessments

Assignments: There are two homework assignments. You can choose to work on an assignment alone or in a group of up to four members (including you). Your choice to work alone or in a group can change for each assignment. Your group members can also change for each assignment.

Quizzes: four quizzes will be given during the course. The purpose of quizzing is to assess how well you are grasping course concepts. Quizzes will be given at the end of a class period. No make-up quiz will be given because quiz solutions are usually posted after the quiz. The lowest quiz mark for each student will be dropped at the end of the term.

Participation: There are three ways to earn participation points:
1. Work on the assigned preparedness problems and turn in your draft answers at the beginning of the next class. This is to ensure you are prepared for in-class discussion. There will be 5 preparedness problems. If you submit the draft answers for the 5 problems, you will earn half of the participation marks (5% of the total grade).
2. Participate in in-class activities including iClicker questions and database practice problems. Each student is expected to participate actively and thoughtfully in the activities. This means responding to iClicker questions, and sharing your solutions or providing feedback to others' solutions. If you respond to at least 80% of the iClicker questions and share or comment on exercise solutions at least twice, you will earn 30% of the participation marks (3% of the total grade).
3. Be a good citizen by a) attending class regularly, b) arriving on time, and c) respecting others. This counts for the remaining 20% of the participation marks (2% of your total grade).

Final exam: The final exam will encompass all lecture and reading materials covered in the course. A study guide will be provided during the final review class.

LEARNING MATERIALS

Textbook: We have an optional textbook: Modern Database Management, 13th Edition, by Jeff Hoffer, Ramesh Venkataraman, and Heikki Topi, Pearson Education, 2018, ISBN: 9780134792279. You are not required to purchase this book, but if you would like to have a copy, Pearson Education has only the digital version at this moment. You can either go to the front cashier of UBC bookstore or visit https://bookstore.ubc.ca/textbooks to purchase a download of the digital version.

Canvas: Access to all course resources (slides, readings, assignments, grades, and etc.) will be through http://canvas.ubc.ca Please note that you need a Campus Wide Login (CWL) account to access the course web site. If you don't have a CWL account, please register at: http://cwl.ubc.ca.

iClicker: We will use iClicker for in-class activities. The link to our course is:
BA1: https://join.iclicker.com/QJAL
BA2: https://join.iclicker.com/SXFD

Piazza: We will use Piazza for discussions about course materials, homework assignments, quizzes, exercises, etc. A link to our Piazza forum is in the Canvas course site. Or, you can visit directly at: https://piazza.com/ubc.ca/winterterm12023/bait507

COURSE-SPECIFIC POLICIES AND RESOURCES
Missed or late assignments, and regrading of assessments

Late homework submissions will NOT be accepted. Students are personally responsible for maintaining BACKUPS of their homework files.

Make-up quiz: There is no make-up quiz. Since the lowest quiz mark will be dropped, missing one quiz should not affect your grade.

If you would like to request regrading of an assignment or quiz, please use the Regrading Request Form in the Misc module in the Canvas course site.

Academic Concessions
If extenuating circumstances arise, please contact the RHL Graduate School program office as early as reasonably possible, and submit an Academic Concession Request & Declaration Form. If an academic concession is granted during the course, the student will be provided options by RHL, or by the instructor in consultation with RHL, per UBC's policy on Academic Concession.

Code Plagiarism
Code plagiarism falls under the UBC policy for Academic Misconduct. Students must correctly cite any code that has been authored by someone else or by the student themselves for other assignments. Cases of "reuse" may include, but are not limited to:
- the reproduction (copying and pasting) of code with none or minimal reformatting (e.g., changing the name of the variables)
- the translation of an algorithm or a script from a language to another
- the generation of code by automatic code-generations software

An "adequate acknowledgement" requires a detailed identification of the (parts of the) code reused and a full citation of the original source code that has been reused.
Students are responsible for ensuring that any work submitted does not constitute plagiarism. Students who are in any doubt as to what constitutes plagiarism should consult their instructor before handing in any assignments.

POLICIES APPLICABLE TO COURSES IN THE ROBERT H. LEE GRADUATE SCHOOL
Attendance
Excepting extenuating circumstances, students are expected to attend 100% of their scheduled class hours. Absent students limit their own academic potential, and that of their classmates, and cause unnecessary disruption to the learning environment. Students missing more than 20% of the total scheduled class hours for a course (including classes held during the add/drop period) without having

received an academic concession will be withdrawn from that course. Withdrawals, depending on timing, could result in a "W" or an "F" standing on the transcript.

COVID-19 Policies for Attendance & Academic Concessions:
If a student feels unwell, they should stay home and send a courtesy email to each impacted instructor and cc their program manager. The student should also submit an Academic Concession Request & Declaration Form.

If a student suspects possible COVID-19 infection, they should use the BC Ministry of Health's self-assessment tool, to help determine whether further assessment or testing for COVID-19 is recommended.

Punctuality
Students are expected to arrive for classes and activities on time and fully prepared to engage. Late arrivals may be refused entry at the discretion of the instructor or activity lead. Students arriving later than halfway through a scheduled class will be treated as absent for that class.

Electronic Devices
Devices such as laptops, tablets, and cell phones are not permitted to be used in class unless directed by the instructor for in-class activities. Students who do not follow the School's policy in this regard may be required to leave the room for the remainder of the class, so that they do not distract others. Research shows that students' use of laptops in class has negative implications for the learning environment, including reducing their own grades and the grades of those sitting around them.

Citation Style
Please use the American Psychological Association (APA) reference style to cite your sources.

Details of the above policies and other RHL Policies are available at:
http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,199,506,1625

UNIVERSITY POLICIES AND RESOURCES
UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available on the UBC Senate website at https://senate.ubc.ca/policies-resources-support-student-success.

Respect for Equity, Diversity, and Inclusion
The UBC Sauder School of Business strives to promote an intellectual community that is enhanced by diversity along various dimensions including status as a First Nation, Metis, Inuit, or Indigenous person, race, ethnicity, gender identity, sexual orientation, religion, political beliefs, social class, and/or disability. It is critical that students from diverse backgrounds and perspectives be valued in and well-

served by their courses. Furthermore, the diversity that students bring to the classroom should be viewed as a resource, benefit, and source of strength for your learning experience. It is expected that all students and members of our community conduct themselves with empathy and respect for others.

Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

COPYRIGHT

All materials of this course (course handouts, lecture slides, assessments, course readings, etc.) are the intellectual property of the instructor or licensed to be used in this course by the copyright owner. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline and could be subject to legal action. Any lecture recordings are for the sole use of the instructor and students enrolled in the class. In no case may the lecture recording or part of the recording be used by students for any other purpose, either personal or commercial. Further, audio or video recording of classes are not permitted without the prior consent of the instructor. Students may not share class Zoom links or invite others who are not registered to view sessions.

ACKNOWLEDGEMENT

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xʷməθkʷəy̓əm (Musqueam) people, who for millennia have passed on their culture, history, and traditions from one generation to the next on this site.

COURSE SCHEDULE

(Subject to change with class consultation)

Class	Synchronous Or Asynchronous	Date	Topic	Readings or Activities	Assessments due
1	Synchronous	Oct 30	Introduction and conceptual data model		
2	Synchronous	Nov 1	Conceptual data model		
3	Synchronous	Nov 6	Logical design	• Quiz 1 (cover conceptual model) • First assignment is posted	
4	Synchronous	Nov 8	Logical design and normalization		
	No class	Nov 13	Rememberence Day holiday		
5	Synchronous	Nov 15	Basic SQL	Quiz 2 (cover logical design)	First assignment is due
6	Synchronous	Nov 20	Basic SQL		
7	Synchronous	Nov 22	Intermediate SQL	• Quiz 3 (cover basic SQL) • Second assignment is posted	
8	Synchronous	Nov 27	Intermediate SQL		
9	Synchronous	Nov 29	Advanced SQL		
10	Synchronous	Dec 1	Advanced SQL and alternative database technologies	Quiz 4 (cover intermediate and advanced SQL)	Second assignment is due