



### **COURSE INFORMATION**

Course title: Data Management for Business Analytics

Course code: BAIT 507 Credits: 1.5 Session, term, period: Fall 2021, Period 2 Class location: HA 491

Section(s): BA1 Class times: Mon/Wed 2pm-4pm

Course duration: Oct 25 – Dec 4, 2021 Pre-requisites: N/A
Division: MBAN Co-requisites: N/A

Program: MBAN

### **INSTRUCTOR INFORMATION**

Instructor: Nader Beyzaei

Phone: N/A Office location: TBD Email: nader.beyzaei@ubc.ca Office hours: TBD

Teaching assistant: Berkay Bulut

Office hours: TBD Email: N/A

# **COURSE DESCRIPTION**

This course covers the fundamentals of databases and data management, 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**

This course will be in-person and on-campus. Please bring your laptops to class as we will be using software to write SQL queries and using other database technologies in-class together as exercises and practice, as well as small group-work. Mac, PC, or Linux should all be ok, however please refrain from using the computer for anything except viewing/doing course content in the class as it distracts other students.

# **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. Learn about alternative data technologies like NoSQL, graphs, columnar etc.
- 5. Effectively prepare for SQL questions in real-world job interviews.

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#### **ASSESSMENTS**

# Summary

Component	<u>Weight</u>
Assignments	40 %
Final exam	50 %
Class participation	<u>10</u> %
Total	<u>100</u> %

# Details of Assessments

There will be about one assignment that will be individually assessed and done per week. Participation will be taken through class attendance and questions/interaction with other students. Finally, the final exam will take up the remaining 50% and will be conducted in-person at the end of the term.

### LEARNING MATERIALS

**Textbook:** There is no required textbook for this course.

Canvas: Access to all course resources (slides, discussion forum, assignments, and etc.) will be through <a href="http://canvas.ubc.ca">http://canvas.ubc.ca</a> 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: <a href="http://cwl.ubc.ca">http://cwl.ubc.ca</a>.

**Computers:** You need a reasonably fast Windows, Mac, or Linux computer manufactured within 5 years for learning activities in this course. The computer should have both webcam and microphone. Recommended: dual-core processor and 4GB of memory minimum.

**Web Browser**: You need to install either Google Chrome or Mozilla Firefox web browser for learning activities in this course. Other web browsers may not be compatible with some web-based services used in this course.

## **COURSE-SPECIFIC POLICIES AND RESOURCES**

Missed or late assignments, and regrading of assessments

Late submissions will not be accepted and will receive a grade of zero.

### Academic Concessions

If extenuating circumstances arise, please contact the RHL Graduate School program office as early as reasonably possible, and submit an <a href="Academic Concession Request & Declaration Form">Academic Concession Request & Declaration Form</a>
<a href="https://webforms.sauder.ubc.ca/academic-concession-rhlee">https://webforms.sauder.ubc.ca/academic-concession-rhlee</a>. 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 <u>Academic Misconduct</u>. 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)

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- 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 on assessment due prior to students joining the course (i.e., during the add/drop period).

#### 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 <u>Academic Concession Request & Declaration Form.</u>

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

If a student is required to self-isolate (e.g., while waiting for test results), they should follow the steps above (stay home, email instructor(s) and program manager, submit an <u>Academic Concession Request & Declaration Form</u>, and follow BC Health Guidance.

Students who are required to quarantine, should get in touch with their Program Manager to discuss the possibility of academic concessions for each impacted course. The Program Manager will work closely with your instructors to explore options for you to make up the missed learning.

## COVID-19 Safety in the Classroom:

Masks: Masks are required for all indoor classes, as per the BC Public Health Officer orders. For our inperson meetings in this class, it is important that all of us feel as comfortable as possible engaging in class activities while sharing an indoor space. For the purposes of this order, the term "masks" refers to medical and non-medical masks that cover our noses and mouths. Masks are a primary tool to make it harder for COVID-19 to find a new host. You will need to wear a medical or non-medical mask for the duration of our class meetings, for your own protection, and the safety and comfort of everyone else in the class. You may be asked to remove your mask briefly for an ID check for an exam, but otherwise, your mask should cover your nose and mouth. Please do not eat in class. If you need to drink

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water/coffee/tea/etc, please keep your mask on between sips. Students who need special accommodation are asked to discuss this with the program office.

**Seating in class:** To reduce the risk of COVID-19 transmission, please sit in a consistent area of the classroom each day. This will minimize your contacts and will still allow for the pedagogical methods planned for this class to help your learning.

Visit the following website for the most recent updates regarding COVID-19 protocol on campus: <a href="https://students.ubc.ca/campus-life/returning-to-campus">https://students.ubc.ca/campus-life/returning-to-campus</a>

### **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

## In-Person Regulations

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.

### **On-Line Lecture Regulations**

During online lectures, students are not permitted to use any electronic devices other than the primary one used for attending the online lecture (e.g. laptop or desktop). Only Zoom should be open during the online lecture unless an instructor advises the use of another program/website for an in-class activity. Feedback from students indicates that personal devices are the number one distraction from effective learning and participation in the online learning environment.

# 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 <a href="https://senate.ubc.ca/policies-resources-support-student-success">https://senate.ubc.ca/policies-resources-support-student-success</a>.

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## 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.

# Academic Freedom and Students Studying from Outside Canada

During this pandemic, the shift to online learning has greatly altered teaching and studying at UBC, including changes to health and safety considerations. Keep in mind that some UBC courses might cover topics that are censored or considered illegal by non-Canadian governments. This may include, but is not limited to, human rights, representative government, defamation, obscenity, gender or sexuality, and historical or current geopolitical controversies. If you are a student living abroad, you will be subject to the laws of your local jurisdiction, and your local authorities might limit your access to course material or take punitive action against you. UBC is strongly committed to academic freedom, but has no control over foreign authorities (please visit <a href="http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0">http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0</a> for an articulation of the values of the University conveyed in the Senate Statement on Academic Freedom). Thus, we recognize that students will have legitimate reason to exercise caution in studying certain subjects. If you have concerns regarding your personal situation, consider postponing taking a course with manifest risks, until you are back on campus or reach out to your academic advisor to find substitute courses. For further information and support, please visit: <a href="http://academic.ubc.ca/support-resources/freedom-expression">http://academic.ubc.ca/support-resources/freedom-expression</a>

# **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

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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  $x^w m \theta k^w \partial \theta m$  (Musqueam) people, who for millennia have passed on their culture, history, and traditions from one generation to the next on this site.

#### **ONLINE TEACHING TOOL & REQUIREMENTS**

This course might be taught using Zoom for synchronous classes and office hours.

For this course, you might be required to use a Zoom account during synchronous classes and office hours. If you do not have a Zoom account, you can create one here: <a href="https://zoom.us/signup">https://zoom.us/signup</a>. Note: creating a Zoom account requires that you provide a first name, last name, and email address to Zoom. For privacy purposes, you may consent to using your existing email address and your real name. Alternatively, if you prefer, you may sign up using an alternative email address and an anonymized name that does not identify you (i.e. Jane Doe, <a href="mailto:jane.doe@email.com">jane.doe@email.com</a>). If you have trouble creating an account, or accessing a Zoom session, please contact <a href="mailto:CLCHelp@sauder.ubc.ca">CLCHelp@sauder.ubc.ca</a>. You will be required to provide the email address associated with your Zoom account in a Canvas quiz for identification purposes.

To help replicate the classroom experience, make sessions more dynamic and hold each person accountable, both students and instructors are required to have their cameras on during Zoom sessions. Students who require an accommodation with regard to the "camera on" requirement must contact their instructors in advance of the first class to discuss options. As professional graduate students, students are expected to conduct themselves professionally by joining sessions on time, muting mics when not speaking, refraining from using any other technology when in-session, attending in business casual dress (at a minimum), and participating from a quiet environment. Content from synchronous sessions will be selectively recorded per instructor discretion and made available to students on Canvas for a maximum duration of the course length. This is done to allow students the opportunity to return to lecture content to solidify learnings.

### **COURSE SCHEDULE**

(Subject to change with class consultation)

	Synchronous			
	Or			
Class	Asynchronous	Date	Topic	Assessments due
1	Synchronous	Oct 25	Course Introduction	
2	Synchronous	Oct 27	Basic SQL 1	
3	Synchronous	Nov 1	Basic SQL 2	
4	Synchronous	Nov 3	Database Modeling 1	
5	Synchronous	Nov 8	Database Modeling 2	Assignment 1
6	Synchronous	Nov 10	Intermediate SQL 1	
7	Synchronous	Nov 15	Intermediate SQL 2	Assignment 2
8	Synchronous	Nov 17	NoSQL + Other DB Technologies	
9	Synchronous	Nov 22	Workshop/Special Topics	Assignment 3
10	Synchronous	Nov 24	Course Conclusions	

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	Asynchronous	Nov 28		Assignment 4
11	Synchronous	TBD	Final Exam	

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