

COURSE INFORMATION

Course title:	Data Management for Business Analytics		
Course code:	BAIT 507	Credits:	1.5
Session, term, period:	2020W2, Period 1	Class location:	Online Zoom Meetings
Section(s):	BA1	Class times:	Tue/Thu 6 – 8pm
Course duration:	Jan 4 to Feb 4, 2020	Pre-requisites:	N/A
Division:	Accounting and IS	Co-requisites:	N/A
Program:	MBAN		

INSTRUCTOR INFORMATION

Instructor:	Wei Sun, Ph.D.		
Phone:	Zoom Virtual Office	Office location:	Zoom Link Published In Canvas
Email:	Wei.Sun@sauder.ubc.ca	Office hours:	Fri 5 – 6 pm, or by Appointment

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

We will use Zoom to have our classes during the scheduled class times. The Zoom meeting info is posted on Canvas. This course consists of two-hour online classes. There will be a quiz at the beginning of every Tuesday's class, except the first class. Most classes consist of both lectures and exercises. Most exercises are SQL programming oriented and will be done on computer using Oracle Database cloud edition. This system has a web user interface and requires Chrome or Firefox web browser. In some exercises, we will work together to solve real SQL job interviews from HackRank.com and LeetCode.com.

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. Apply SQL in data cleaning.
5. Effectively prepare for SQL questions in real-world job interviews.

ASSESSMENTS

Summary

Component	Percentage	Graded As	Discussion with Classmates
Homework	ZERO%	N/A	Allowed
Participation	10%	Individual	Allowed
In-Class Quizzes 1-4	40%	Individual	Forbidden
Final Exam	50%	Individual	Forbidden
Total	100%	Individual	

Details of Assessments

Homework is a very important part of this course. Although it is not directly counted towards your grades, questions using similar problem-solving techniques will be tested in quizzes and exams. For most homework questions, you will work on selected real-world SQL job interview questions that are available for free online, from websites such as HackRank.com and LeetCode.com. These websites provide an automatic grader that provides immediate feedback on whether your solution is correct or not. They also provide an online discussion forum where you can learn from others on the best way to solve the question. You may try-and-error as many times as needed until you work out the correct solution. You can expect to learn a lot during this process. Such websites are the most essential tools for preparing for programming job interviews today. In fact, many real-world job interviews – especially at top-tier tech companies – test the same or very similar questions from these websites.

Participation: Students will normally receive a participation score directly according to their quiz and final exam scores. This is to appreciate that students have diversified preferences and contribute to the learning in different ways. However, the instructor reserves the right to assign participation scores based on participation records. For example,

- If you have made exceptional contributions in classroom activities or in helping classmates, you may receive additional awards in participation score.
- If you make disrespectful remarks in class or disrupt class order, you may receive a penalty in participation score.

Quizzes: There will be four quizzes, one for each Tuesday's class, except the first class, given at the beginning of a class period. The content of a quiz will be based on previous week's lecture content and homework assignments. Each quiz counts towards 10% of your course grade. No make-ups will be given. So be on time! If you missed one quiz due to special circumstances, the percentage will be shifted to your final exam. If you missed more than one quiz, a formal academic concession from the RHL graduate school program office is required. Otherwise you will receive a score of zero for the missed quizzes.

Final Exam: The final exam will cover all lecture contents, reading materials, and homework questions covered in this course. A study guide will be provided during the final review class.

The quizzes and the final exam are open book. However, do note that if you have not already learned enough beforehand to solve a quiz and exam question, it is very unlikely that you will be able to figure things out in the short duration of the quiz or exam (except for some small details that you are unsure

about). **Therefore, although the quizzes and exams are open book, you should prepare for them as if they are closed book.** During the quizzes and exam, you should focus on thinking and problem solving, rather than searching for new knowledge that you have not already learned.

During quizzes and exams, you may view lecture notes, view your own notes, and do online search. However, you cannot test SQL code using Oracle DB, and you cannot discuss with anyone in any way. If you have questions, private text message the instructor on Zoom.

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 <http://canvas.ubc.ca> 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>.

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: quad-core processor and 8GB of memory.

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. This is standard for RHL courses.

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](https://webforms.sauder.ubc.ca/academic-concession-rhlee) <https://webforms.sauder.ubc.ca/academic-concession-rhlee>. 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](#).

Other Course Policies and Resources

For quizzes due prior to students joining the course (during the add/drop period), the corresponding quiz percentage will be shifted to the final exam.

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 [DO NOT MODIFY]

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.

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

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 <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.

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 <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0> 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: <http://academic.ubc.ca/support-resources/freedom-expression>

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 xwməθkwəyəm (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 will be taught using Zoom for synchronous classes and office hours.

[if you wish to take attendance, tack polls, or pre-set breakout groups in your Zoom sessions, include the statement below]

For this course, you are 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: <https://zoom.us/signup>. 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, jane.doe@email.com). If you have trouble creating an account, or accessing a Zoom session, please contact CLCHelp@sauder.ubc.ca. 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)

Wk	Date	Topic	Assessments due
1	2021/01/05	Course Introduction Tutorial for SQL Developer Web	
	2021/01/07	Basic SQL 1	
2	2021/01/12	Basic SQL 2	Quiz 1
	2021/01/14	Database Modeling 1	
3	2021/01/19	Database Modeling 2	Quiz 2
	2021/01/21	Advanced SQL 1	
4	2021/01/26	Advanced SQL 2	Quiz 3
	2021/01/28	Data Cleaning with SQL 1	
5	2021/02/02	Data Cleaning with SQL 2	Quiz 4
	2021/02/04	Course Conclusions	
	TBD	Final Exam	Final Exam