



Syllabus

SCHOOL OF BUSINESS AND MANAGEMENT **BUS 442: Advanced Tools in Business Analytics**

5 Credits
Effective: Summer 2020

Access to the Internet is required.
All written assignments must be in Microsoft-Word-compatible formats.
See the library's APA Style Guide tutorial for a list of resources that can help you use APA style.

FACULTY

Faculty Name: FACULTY NAME

Contact Information: CONTACT INFORMATION

[INSTRUCTOR MAY INSERT PERSONAL MESSAGE IF DESIRED]

COURSE DESCRIPTION

In a global digital economy, customer-centric strategies drive business innovations. The web allows businesses to tap into a wealth of customer behavior in order to analyze and answer key questions such as “Which category of our customers continue to buy our products and why?” and “Who in our customers’ network is likely to adopt our product?” This course assumes that the tools to data mining and business analytics must be accessible to people within business domains. The course is self-contained and demands no background in programming. It is designed to take students over a series of introductory materials with an emphasis on the practical aspects of applying this knowledge to real-world business analytics problems. After taking this course, students can apply the tools provided to deliver business analytics solutions for data-driven decision making in a variety of business scenarios, such as pricing, marketing, and advertisement.

COURSE RESOURCES

Required and recommended resources to complete coursework and assignments are found on the course [Reading List](#). The reading list can be found under Course Information in Blackboard as well as from the library homepage.

Note: Required resources that must be purchased by the student are tagged “Purchase from a vendor of your choosing.” Required resources with a direct link, “Available through CityU Library”, are available at no cost to students.

Students in Canada will see required resources they need to purchase tagged “Purchase from the Canadian Bookstore.” Students outside the U.S. and Canada should contact their advisor or textbook coordinator for additional information.

CITYU LEARNING GOALS

This course supports the following City University learning goals:

- Critical thinking and information literacy

COURSE OUTCOMES

In this course, learners:

- Assess and improve key performance indicators using a suite of business analytics tools.
- Use regression to accurately anticipate future performance.
- Implement linear optimization tools to guide business decisions.
- Build trending and forecasting models to project key performance indicators.

OVERVIEW OF COURSE GRADING

The grades earned for the course will be derived using City University of Seattle's decimal grading system, based on the following:

<i>Overview of Required Assignments</i>	<i>% of Final Grade</i>
Discussion Boards	9%
Introduction to R	6%
Weekly Exercises	70%
Final Data Case Study	15%
TOTAL	100%

SPECIFICS OF COURSE ASSIGNMENTS

The instructor will provide grading rubrics that will provide more detail as to how this assignment will be graded.

Discussion Boards

Students will participate in weekly discussion boards forums, posting their detailed responses with proper APA citation and responding thoughtfully to their peers.

<i>Components</i>	<i>% of Grade</i>
Discussion board post and responses	100%
TOTAL	100%

Introduction to R

Students will complete an Introduction to R course as offered by DataCamp.com

<i>Components</i>	<i>% of Grade</i>
Completion of all six chapters of the Intro to R course	100%
TOTAL	100%

Weekly Exercises

Students will complete weekly exercises that allow them to learn and practice advanced business analysis. These weekly projects will represent opportunities to demonstrate competence in regression, classification, clustering, and optimization. Each of these projects will be completed using the R scripting language to expand students' data analysis tools.

<i>Components</i>	<i>% of Grade</i>
Use of course concepts	20%
Application of analytics tools	50%
Evaluating information	30%
TOTAL	100%

Final Project

Students will utilize the knowledge they have gained to address a data-oriented case study exercise. They will be provided with a case and a dataset. They will be expected to address the case and to demonstrate the use of advanced analytical tools to make meaning out of the dataset.

<i>Components</i>	<i>% of Grade</i>
Addressing the case	40%
Application of Analytics Tools	50%
Writing Mechanics	10%
TOTAL	100%

COURSE POLICIES

Late Assignments

A critical aspect of management is to meet predefined deadlines. Therefore, all assignments are expected to be submitted when due. No late assignments are accepted. Life-situations do occur. When an issue arises coordinate with the instructor PRIOR TO the assignment's due date and the due date may be adjusted. It is in the best interest of the student to ensure that all assignments are submitted on time.

Participation

Class participation will be evaluated during class. Participation includes being prepared for class discussions and contributing meaningful content when appropriate. It also includes individual effort contributed to team projects.

Professional Writing

Assignments require error-free writing that uses standard English conventions and logical flow of organization to address topics clearly, completely, and concisely. CityU requires the use of APA style.

UNIVERSITY POLICIES

You are responsible for understanding and adhering to all of City University of Seattle's academic policies. The most current versions of these policies can be found in the [University Catalog](#) that is linked from the CityU Web site.

Non-Discrimination & Prohibition of Sexual Misconduct

City University of Seattle adheres to all federal, state, and local civil rights laws prohibiting discrimination in employment and education. The University is committed to ensuring that the education environment is bounded by standards of mutual respect and safety and is free from discriminatory practices.

In the U.S., the University is required by Title IX of the Education Amendments of 1972 to ensure that all of its education programs and activities do not discriminate on the basis of sex/gender. Sex include sex, sex stereotypes, gender identity, gender expression, sexual orientation, and pregnancy or parenting status. Sexual harassment, sexual assault, dating and domestic violence, and stalking are forms of sex discrimination, which are prohibited under Title IX and by City University of Seattle policy. City University of Seattle also prohibits retaliation against any person opposing discrimination or participating in any discrimination investigation or complaint process internal or external to the institution. Questions regarding Title IX, including its application and/or concerns about noncompliance, should be directed to the Title IX Coordinator. For a complete copy of the policy or for more information, visit <https://my.cityu.edu/titleix> or contact the Title IX Coordinator.

In Canada, in compliance with the British Columbia Human Rights Code, the Alberta Human Rights Act, WorksafeBC, and the Workers' Compensation Board of Alberta, the University believes that its environment should at all times be supportive and respectful of the dignity and self-esteem of individuals. Discrimination, harassment and bullying conduct, whether through person to person behaviour or via electronic communications such as email or social media is not acceptable and will not be tolerated. As an educational institution, it is our responsibility to cultivate an environment of excellence, equity, mutual respect and to recognize the value and potential of every individual. The University will take all necessary steps to meet or exceed the requirements of the law to prevent discrimination, harassment and bullying. The Respectful Workplace Policy for the prevention of discrimination, harassment and bullying policy and procedure can be found at <https://www.cityu.edu/discover-cityu/about-cityu/> under the Policies section or at <https://www.cityuniversity.ca/about/>.

Religious Accommodations

City University of Seattle has a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The University's policy, including more information about how to request an accommodation, is available in the University Catalog and on the my.cityu.edu student portal. Accommodations must be requested by the 20% mark of this course (e.g. day 14 of a ten-week course, day 7 of a 5-week course) using the Religious Accommodations Request Form found on the student dashboard in the my.cityu.edu student portal.

Academic Integrity

Academic integrity in students requires the pursuit of scholarly activity that is free from fraud, deception and unauthorized collaboration with other individuals. Students are responsible for understanding CityU's policy on academic integrity and adhering to its standards in meeting all course requirements. A complete copy of this policy can be found in the University Catalog in the section titled [Academic Integrity Policy](#) under Student Rights & Responsibilities.

Attendance

Students taking courses in any format at the University are expected to be diligent in their studies and to attend class regularly. Regular class attendance is important in achieving learning outcomes in the course and may be a valid consideration in determining the final grade. For classes where a physical presence is required, a student has attended if they are present at any time during the class session. For online classes, a student has attended if they have posted or submitted an

assignment. A complete copy of this policy can be found in the [University Catalog](#) in the section titled Attendance under Student Rights & Responsibilities.

Final Assignments Due Date

Final assignments for each class at CityU must be due on or before the final date of the course as indicated in the university's course information system. Due dates that extend beyond the final date of the course may negatively impact tuition funding for students.

SUPPORT SERVICES

Disability Services Accommodations Statement

Students with documented disability who wish to request academic accommodations are encouraged to contact Disability Support Services to discuss accommodation requests and eligibility requirements. Please contact Disability Support Services at disability@cityu.edu or 206.2369.4752 or visit the [Disability Support Services](#) page in the my.cityu.edu portal. Confidentiality will be observed in all inquiries. Once approved, information about academic accommodations will be shared with your course instructors.

Library Services

CityU librarians are available to help students find the resources and information they need to succeed in this course. Contact a CityU librarian through the [Ask a Librarian](#) service, or access [library resources and services](#) online, 24 hours a day, seven days a week.

Smarthinking Tutoring

CityU students have 24/7 access to free online tutoring offered through Smarthinking, including writing support, from certified tutors. Contact CityU's Student Support Center at mycityusupport@cityu.edu to request a username and password.