



#### **COURSE INFORMATION**

Course title: Pricing Analytics

Course code: BAMA511 Credits: 1.5
Session, term, period: 2021 W Period 5 Class location: HA337

Section(s): BA1 Class times: M/W 8:00-10:00 AM

Course duration: April 18 – May 28 Pre-requisites: Division: Marketing and Behavioural Co-requisites:

Science

Program: MBAN

#### **INSTRUCTOR INFORMATION**

Instructor: Tim Huh, Ph.D. (1st Half)

Phone: 604-822-0410 Office location: HA 465

Email: tim.huh@sauder.ubc.ca Office hours:

Instructor: Chunhua Wu, Ph.D. (2<sup>nd</sup> Half)

Phone: 604-827-2266 Office location: HA 572

Email: <a href="mailto:chunhua.wu@sauder.ubc.ca">chunhua.wu@sauder.ubc.ca</a>Office hours: M 1:00-2:00 PM & Appointment

Teaching assistant: Cindy Chen (2<sup>nd</sup> Half)
Email: cindy.chen@sauder.ubc.ca

## **COURSE DESCRIPTION**

Pricing is one of the most important and least understood business decisions. This course aims to equip participants with proven concepts, techniques, and frameworks for assessing and formulating pricing strategies. We will learn the process of making pricing decisions and explore innovative approaches for setting prices from both operations research and marketing perspectives.

### **COURSE FORMAT**

The course will be co-taught by Professors Tim Huh and Chunhua Wu. The typical use of class time will be a lecture mixed with case discussions, presentations, data analyses, and classroom activities.

## **LEARNING OBJECTIVES**

Upon completion of this course, students will:

- Gain a solid understanding of current pricing practices in both products and service industries
- Learn frameworks and tools for analyzing pricing decisions
- Analyze a pricing scenario using market data
- Develop strategies for revenue model design and grow more profitability
- Assess the effectiveness of business pricing practices

BAMA 511 BA1 1 March 14, 2022



#### **ASSESSMENTS**

### **Summary**

Component	<u>Weight</u>
Class Participation	10%
Individual Homework	15%
Group Assignments	15%
Group Project	25%
Final Exam	35%
Total	<u>100</u> %

# Details of Assessments

# A. Class Participation/Preparation (10%)

Every session of the course will involve interaction in the form of class discussion. We expect each class member to be prepared at all times to comment in any class session.

Some class sessions in this course follow a case discussion format. The case method is not always an efficient learning vehicle, but it is one of the most effective means of sharpening your decision-making abilities, requiring you to be an active participant in resolving a marketing problem. Further, the case method provides a vehicle by which to apply the theories and concepts discussed in a class or in the reading materials. Finally, the discussion forum provides an opportunity to argue your position and to learn from others by listening to their comments and criticisms.

# **Evaluating class participation:**

Grading class participation is necessarily subjective. Some of the criteria for evaluating effective class participation include:

- 1. Is the participant prepared? Do comments show evidence of analysis of the case? Do comments add to our understanding of the situation? Does the participant go beyond simple repetition of case facts without analysis and conclusions? Do comments show an understanding of theories, concepts presented in-class lectures, or reading materials?
- 2. Is the participant a good listener? Are the points made relevant to the discussion? Are they linked to the comments of others? Is the participant willing to interact with other class members?
- 3. Is the participant an effective communicator? Are concepts presented in a concise and convincing fashion?

Keep in mind that your grade for class participation is not simply a function of the amount of "air time" you take up. In general, we will evaluate you on how well you respond to questions and on how effectively you take into account the comments and analyses of your classmates. In order to obtain a grade for class participation, you must attend the class sessions.

BAMA 511 BA1 2 March 14, 2022



## B. Individual Homework (15%)

You need to finish one individual homework for each of the first 5 lectures. Each homework accounts for 3% of your final grade.

# C. Group Assignments (15%)

You will be randomly assigned to a team of 4-5 members at the beginning of the course. Your will stay in the same team to finish the group assignments and group project. At the end of the course, you will have the opportunity to evaluate the contributions of your team members. In case a team member did not show a fair amount of contribution, the grades for the individual student will be adjusted (might be a significant reduction).

You need to finish two group assignments during the second half of the semester. We will provide you with data from a real marketplace (exact numbers may be disguised) to practice your analytics thinking and practice skills. You can use any data analysis tool to help you effectively address the assignment questions. The nature of the pricing context may be complicated so they require good team efforts.

# D. Group Project (25%)

The group project will give you an opportunity to survey the prices of a product category and collect relevant customer and competitive information to help evaluate the pricing practice and determine optimal prices for a firm competing in the category. Details will be provided in class.

<u>Outline of group project:</u> 1) Take an existing company/product/service (can be either B2B or B2C). For too large of a company, be sure to narrow down to the level of a product line which is manageable within the time scope of this class. 2) Critically evaluate the current pricing model using the tools and concepts learnt in this or other related course. 3) Propose a superior pricing model and provide justifications. This new pricing model can be part of a new product, operations, or marketing strategy. 4) Deliver a final presentation to the class and communicate the new pricing model to your target customers.

<u>One-Page Project Summary (3%):</u> By <u>April 29 (Friday) 11:59pm</u>, you will be expected to turn in a one-page project definition of your topic, which will be the focus of your study. In this summary, you should 1) clearly identify the existing company/product/service you chose to work on for the project, 2) make a case for the importance of studying and improving its pricing strategy, and 3) provide a sketch of its industry and the competition it is situated in.

<u>Pricing Analysis Video (7%):</u> Your team will produce a 3-minutes video that describes the company (e.g. the company's current product/product line of your interest, its current pricing and relevant customer segments) and its pricing context. Your analysis may not be limited to these suggestions. Video making tips and resources will be provided.

Submission of this video is due **May 6 (Friday) 11:59pm**. You will then be asked to evaluate videos of other teams (excluding your own). The evaluation your video receives from your peers will count

BAMA 511 BA1 3 March 14, 2022



towards 3% of your grade in this component. Moreover, participation in this evaluation will be considered part of the class participation.

## Final Project Slides and Presentation (15%):

All teams should submit slides for their final pricing strategy recommendations and prepare for an 8-minutes project presentation in the last class on May 17 (Wed) (<u>Submission Due May 16 (Tue) 2pm</u>). Read "Outline of group project" for the expected deliverables. On average, groups have typically conducted 2-4 types of analyses to support their strategy suggestions.

The top 3 teams from the video votes and another 4-5 randomly drawn teams will be invited to present in the last class. The grading of the final project slides and presentations will not depend on whether you were invited for the presentation or not.

## E. Final Exam (35%)

A final exam will be used to test your understanding of the key concepts taught in the class. The exam will be closed-book and taken during the exam period. The exam consists of multiple-choice questions and short answer questions.

### **LEARNING MATERIALS**

The online library reserve contains most of the required and optional readings. In addition, a set of cases is available for purchase through Ivey Publishing.

Estimated cost of required materials: \$9.90 (Digital)

- 1. Go to the Ivey Publishing website at www.iveycases.com
- 2. Log in to your existing account or click "Register" to create a new account and follow the prompts to complete the registration. If registering, choose the "Student User" role.
- 3. Click on this link or copy into your browser: <a href="https://www.iveypublishing.ca/s/ivey-coursepack/a1R5c00000F2YLdEAN/pricing-analytics">https://www.iveypublishing.ca/s/ivey-coursepack/a1R5c00000F2YLdEAN/pricing-analytics</a>
- 4. Click "Add to Cart".
- 5. You may choose to order in either print or digital format.
  - To order the material in digital format, check "digital download" and click "OK".
  - To order a printed copy for delivery, enter the print quantity required and click "OK". Please note that shipping charges will apply.
- 6. Go to the Shopping Cart (located at the top of the page), click "Checkout", and complete the checkout process.
- 7. When payment has been processed successfully, an Order Confirmation will be emailed to you immediately and you will see the Order Confirmation screen.
  - If you ordered digital copies: Click "Download your Digital Items" or go to "My Orders" to access the file.
  - If you ordered printed copies: Your order will be printed and shipped within 2 to 3 business days.

BAMA 511 BA1 4 March 14, 2022



IMPORTANT: Access to downloadable files will expire 30 days from the order date, so be sure to save a copy on your computer. The downloadable file is a PDF document that can be opened using Adobe Reader.

This material is for your personal use only and is not to be shared or distributed in any form.

## **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 <a href="UBC's policy on Academic Concession">UBC's policy on Academic Concession</a>.

#### Other Course Policies and Resources

### 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)
- 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.

BAMA 511 BA1 5 March 14, 2022



## 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 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: https://students.ubc.ca/campus-life/returning-to-campus

## **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

BAMA 511 BA1 6 March 14, 2022



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: <a href="http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,199,506,1625">http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,199,506,1625</a>

#### 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>.

# 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

BAMA 511 BA1 7 March 14, 2022



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

BAMA 511 BA1 8 March 14, 2022



# **COURSE SCHEDULE**

(Subject to change with class consultation)

Class	Date	Topic	Readings or Activities	Assessments due
1	April 20 Wed	Introduction Models of Demand Group Project Setup NYHC (A) Case	PRO Sec 3.1 Homework #1	HW#1 by Apr 19 Group randomly assigned by April 18
2	April 22 Fri	Price Optimization  NYHC(A) Case (Continued)	PRO Sec 3.4.1 & 3.4.2 Homework #2	HW#2 by Apr 21
3	April 25 Mon	Price Differentiation  NYHC(B) Case	PRO Chapter 4 Homework #3	HW#3 by Apr 24
4	April 27 Wed	Revenue Management BlueSky Airlines: Single-Leg Revenue Management Case	"Introduction to the Theory and Practice of Yield Management" article MSD Chapter 15 (optional) Homework #4	HW#4 by Apr 26 Submit one-page project summary by April 29
5	May 2 Mon	Revenue Management (Continued) BlueSky Airlines: Single-Leg Revenue Management Case	Homework #5	HW#5 by May 1
6	May 4 Wed	Psychology of Pricing	Paper: Huber Payne Puto 1982 JCR PRO Chapter 14	Project Presentation Video by May 6
7	May 9 Mon	Internet and Platform Business Pricing Models Pricing Innovations	Case: Freemium Pricing at Dropbox	Group Assignment 1 by May 10
8	May 11 Wed	Price Customization Product Bundling Quantity Discounts Season Ticket Pricing	Assignment 2	Group Assignment 2 by May 15
9	May 16 Mon	Pricing for Profitability Pricing in Practice Price and Non-price incentives	Costco Annual Report	Final Project Slides by May 17 2PM

BAMA 511 BA1 9 March 14, 2022



10	May 18 Wed	Project Presentation Course Summary	
Exam	ТВА		

PRO refers to *Pricing and Revenue Optimization* by Robert Phillips
MSD refers to *Matching Supply with Demand* by Christian Terwiesch and Gerard Cachon
Links to other reading materials will be posted on Canvas.

BAMA 511 BA1 10 March 14, 2022