# COURSE OUTLINE: BAEN 549 001 – INNOVATION AND SUSTAINABILITY

## COURSE INFORMATION

**Instructor: Dharini Thiruchittampalam**
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**Office hours:** by appointment

**Section number:** 001/Term 1 2024 W1
**Course duration:** Oct 29 – Nov 28/2024
**Course website:** UBC Canvas

**Class meeting times: Tues/Thurs 2 – 4 pm**
**Classroom location: Henry Angus 335**

## LAND 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. We are grateful to teach and learn on this land.*

## COURSE DESCRIPTION

This course is concerned with sustainability as an opportunity for innovation. By examining trends shaping the future of business, we will explore how sustainability offers competitive advantages. Students will learn to manage the complexity of sustainability, identify how it motivates the businesses and organizations in all sectors (including social ventures), and be exposed to frameworks that foster innovative thinking. Examples from a wide range of organizations will be used to examine the relationship between innovation and sustainability. Students will evaluate a variety of technological, political, economic and environmental trends that are shaping the future of business.

## COURSE FORMAT

This course will consist of lectures, in-class discussions and presentations, as well as talks by guest speakers. The course format is designed to encourage the exploration and exchange of ideas. Attendance and engaged participation is expected to accomplish the learning objectives below. We will assume that students have pre-read the corresponding readings and materials for all lectures and discussions.

## LEARNING OBJECTIVES

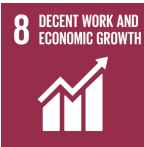By the end of this course, students will be able to:

1. Identify root causes of sustainability challenges in order to recognize opportunities for innovation and potential levers for systemic change.
2. Analyze current realities, market opportunities and issues related to sustainability across a range of industries and business operations.
3. Critically examine businesses, products, services and sustainability initiatives.
4. Expand their repertoire of innovation methods and tools.
5. Synthesize, integrate and apply knowledge from both innovation and sustainability domains towards strategies for positive change.

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## SUSTAINABLE DEVELOPMENT GOALS (SDGS)

At UBC Sauder, we are committed to responsible business practices that can have transformative impacts on society. One of the ways we are reinforcing our commitment to responsible business is by showcasing relevant content in our courses via the lens of the United Nations Sustainable Development Goals.

*In this course, we will touch on topics that relate to the range of goals.  (Please note that specific goals explored may include the following, or others, depending on topics students select for assignments.)*

| | |
|---|---|
| **Goal 7: Affordable and Clean Energy**<br><br>7 AFFORDABLE AND CLEAN ENERGY | ***Ensure access to affordable, reliable, sustainable and modern energy for all***<br><br>**Global Examples:** access to clean energy, energy efficiency, energy policy, renewable energy, affordable clean energy, energy infrastructure upgrades, energy conservation, fossil fuel divestment, energy efficient buildings, renewable energy, community energy infrastructure |
| **Goal 8: Decent Work and Economic Growth**<br><br>8 DECENT WORK AND ECONOMIC GROWTH | ***Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all***<br><br>**Global Examples:** economic diversification, small and medium businesses, fair trade, access to financial services, decent job creation, entrepreneurship, creativity and innovation, meaningful work, employment equity, income equity, labour rights, micro-finance, social finance, safe & inclusive workspace, alternatives to never-ending growth |
| **Goal 9: Industry, Innovation and Infrastructure**<br><br>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | ***Build resilient infrastructure, promote inclusive and <u>sustainable industrialization and foster innovation</u>***<br><br>**Global Examples:** resilient infrastructure, inclusive and sustainable industrialization, innovation, access to transportation, micro-finance, access to credit, small-scale industry support, research and technology, entrepreneurship, access to technology, social enterprise |
| **Goal 11: Sustainable Cities and Communities**<br><br>11 SUSTAINABLE CITIES AND COMMUNITIES | ***Make cities and human settlements inclusive, safe, resilient and <u>sustainable</u>***<br><br>Global Examples: transportation access, road safety, cultural/natural heritage, safe and affordable housing, urban planning, air quality, inclusive/safe/healthy public spaces, urban containment, urban governance, sustainable land use, effects of climate change on cities, valuing risk, sustainable transportation |
| **Goal 12: Responsible Consumption and Production**<br><br>12 RESPONSIBLE CONSUMPTION AND PRODUCTION | ***Ensure sustainable consumption and production patterns***<br><br>**Global Examples:** sustainable and equitable sourcing and production, sustainable procurement, sustainable distribution, food waste, life cycle analysis, recycling and reuse, ecological footprint, corporate social responsibility, fair trade, circular economy, consumer well-being, responsible sourcing, low emission supply chain design, responsible/ethical supply chain |

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| Goal 13: Climate Action<br><br>**13 CLIMATE ACTION** | *Take urgent action to combat climate change and its impacts*<br><br>**Global Examples:** natural disaster response, climate change mitigation, climate change adaptation, climate justice, climate policy, resilience, environmental externalities, low emission supply chain design, Environmental Disclosure, ESG accounting and reporting, Cap and Trade, Carbon Markets, Carbon Pricing |
|---|---|

### ASSESSMENT SUMMARY

| Due Date | Component | Weight |
|---|---|---|
| Ongoing | Participation and Contribution | 15% |
| Ongoing | In-Class Activities and Reflection | 15% |
| | Assignment 1- Sustainability Situational Analysis | 20% |
| | Assignment 2 – Selected Innovation Case Study | 20% |
| | Final Group Project | 30% |
| | **Total** | **100%** |

*Assessment Details*

**Participation and Contribution (15% of Grade ~ Individual)**
Participation and contribution are essential to the learning experience. This is a highly interactive, flipped classroom course with a regular and weekly workload.  Students are expected to attend each class and come prepared to discuss assigned readings and respond to the ideas and comments of others. Interactions are expected to be respectful, informative and well-considered. Participation is evaluated on the quality of thoughtful contribution (not quantity), as well as active engagement with and support of peers. Contribution is about asking thoughtful questions, offering observations and building upon discussions.

**In-Class Activities and Reflection (15% of Grade ~ Individual and Groups)**
Students will be asked to submit responses to discussion questions and activities, prepare brief presentations (under 5 minutes), or submit their findings based on assigned activities. These activities will allow students to apply course concepts and learn from peers. *(Details will be available on Canvas.)*

**Assignment 1 ~ Sustainability Situational Analysis (20% of Grade ~ Individual)**
In order for innovation to result in positive impact, it is essential to understand the problem. The purpose of a situational analysis is to help increase knowledge about the context of a sustainability problem, identified and selected by students.  The selected problem may be local, national, global or specific to another country. With this in mind, it is important to understand the context and system of which the problem is a part, as well as the circumstances and influences that may have resulted in the situation. This type of exercise is essential to developing a deeper understanding of how any proposed future initiatives might impact all stakeholders. *(Details will available on Canvas.)*

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**Assignment 2 ~ Selected Innovation Case Study (20% of Grade ~ Groups of 4)**
The purpose of this assignment is for students to explore and examine how businesses and other organizations (i.e. governments, non-profits, etc.) have used innovative strategies and initiatives to address systemic issues that have been identified (in Assignment 1). By researching and understanding specific case stories (both best practices and "failures"), students will gain an understanding of the challenges and successes innovators experience in creating positive impact. *(Details will be available on Canvas.)*

**Final Group Project (30% of Grade ~ Groups of 4)**
In lieu of a final exam, students will complete a final project in groups. Teams will consist of 4 students and will be evaluated on an in-class presentation and supporting written submission.

Teams will identify a sustainability problem, making a strong case for why it must be addressed. If there is a specific area of interest to students, this will allow them to go deeper. In this project students will be required to examine the problem, the systemic issues and then explore possible different ways that can achieve the intended impact. There is always more than one path.

Students will need to research and provide solid analysis to support the recommended proposed innovation strategy, clearly describing and demonstrating the value and impact that will be created in order to address the specific sustainability problem.  A well-crafted narrative is essential to any presentation or pitch.

Teams will be evaluated on compelling narrative, supporting research and analysis, insights and creativity. *(Details will be available on Canvas.)*

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LEARNING MATERIALS
There is no textbook required for this course, although there may be recommended books. You will be required to access Canvas for class preparation instructions, additional readings and multimedia resources. Readings, videos, podcasts and other course multimedia should be reviewed **before** the class for which they are assigned.

Most of the media will be freely accessible online through various website links, Canvas, and the UBC Library site.  (This will minimize environmental and financial impact.)

NO DISTRIBUTION OF RECORDINGS
There is no distribution of recordings of class. Classes are designed as and are intended to be in-person. Your attendance is expected. If you are unable to attend, the policy regarding missed classes described in this syllabus applies. It is your responsibility to ensure that you have the materials you need for missed classes.

**UBC SAUDER**
SCHOOL OF BUSINESS

**ROBERT H. LEE**
GRADUATE SCHOOL

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### COURSE-SPECIFIC POLICIES AND RESOURCES

*Missed or late assignments, and regrading of assessments*

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

**Regrading Assignments:** Students can request that an assigned grade be reviewed within 24 hours of receipt. Any request must detail in writing why a grade adjustment is deserved and should cite specific examples.

### *Academic Concessions Policy*

**Requesting Academic Concessions**
If you experience unanticipated events or other circumstances that constitute valid grounds for academic concession as defined by UBC's Academic Concession Policy, complete and submit the Academic Concession Request & Declaration form. Concessions are time-sensitive and the online form should be submitted within 48 hours of the missed deadline. Upon submission, your request will be recorded in the RHL and you will also receive an email with further instructions. Please read this email carefully and be sure to also refer to the relevant course syllabus for each concession that you have requested. Please know that you should continue to work on the coursework for the course(s) which you submitted a concession for. You should anticipate being asked to submit work or write an exam as soon as the circumstances affecting your ability to fulfil your academic responsibilities are resolved.

### 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.

#### *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

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## 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 Indigeneity (including identification as First Nation, Métis, or Inuit), 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.

*Use of Artificial Intelligence*

**<u>Generative AI (Including ChatGPT) Not Permitted</u>**

Any work submitted must be your own original work. Any use of generative artificial intelligence (AI), including ChatGPT, is prohibited and constitutes academic misconduct. Any student suspected of submitting work that includes AI generated content may be asked for preliminary work or other materials to evidence the student's original and unaided authorship. The student may also be asked to separately explain or support their work. AI identification methods may also be employed by the instructor. After review, if it is determined by the instructor that submitted work likely contains AI generated content, the work may receive a zero and may be subject to further misconduct measures set out in the UBC Academic Calendar.

## 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.

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### COURSE SCHEDULE

*(**Note:** Schedule subject to change by instructor with consultation and/or notification.)*

| WK | CLASS DATE | CLASS TOPIC | What's Due |
|---|---|---|---|
| 1 | **Class 1**<br>Tuesday,<br>October 29 | **Course Overview**<br>**Innovation**<br>What is Innovation?<br>Innovation Processes | **Prep** (see Canvas) |
| 1 | **Class 2**<br>Thursday,<br>October 31 | **Sustainability**<br>What is Sustainability?<br>How do we define "Sustainability" and sustainability Issues | **Prep** (see Canvas) |
| 2 | **Class 3**<br>Tuesday,<br>November 5 | **Systems**<br>Systems Thinking<br>Wicked Problems \| Critical Systems Heuristics | **Prep** (see Canvas) |
| 2 | **Class 4**<br>Thursday,<br>November 7 | **Social Entrepreneurship \| Social Innovation**<br>Problem Identification and Shifting Equilibria | **Prep** (see Canvas)<br>**In-class Activity 1** |
| 3 | **Monday,**<br>**November 11** | **Assignment 1 due** | 11:55 pm on Canvas |
| 3 | **Class 5**<br>Tuesday,<br>November 12 | **Design Methods** | **Prep** (see Canvas) |
| 3 | **Class 6**<br>Thursday,<br>November 14 | **Business Model Innovation** | **Prep** (see Canvas)<br>**In-class Activity 2** |
| 4 | **Class 7**<br>Tuesday,<br>November 19 | **Scaling ~ Access and Resources**<br>Scaling vs. growth<br>Partnerships<br>Funding (guest speaker tbc) | **Prep** (see Canvas) |
| 4 | **Wednesday,**<br>**November 20** | **Assignment 2 due** | 11:55 pm on Canvas |
| 4 | **Class 8**<br>Thursday,<br>November 21 | **Innovations and Innovators ~**<br>Assignment 2 student presentations<br>(guest speaker tbc) | **Prep** (see Canvas)<br>**Assignment 2 Presentations** |
| 5 | **Class 9**<br>Tuesday,<br>November 26 | **Product \| Service Innovation ~**<br>**Access and Resources**<br>Technological<br>Circularity \| Industrial Symbiosis<br>Biomicry \| Nature Based Solutions | **Prep** (see Canvas) |
| 5 | **Class 10**<br>Thursday,<br>November 28 | **Wrap Up**<br>Final Presentations Practice | **Prep** (see Canvas)<br>**In-class Reflection** |
| 6 | **Sunday,**<br>**December 1** | **Written Submission + Presentation Slides due** | Canvas (time tbd) |
| 6 | **Exam Week**<br>(time/date tbd) | **Final Team Presentations – In Person** | In Person<br>(location tbd) |