# COURSE SYLLABUS PROPOSAL

# BLOCKCHAIN IN OPERATIONS AND SUPPLY CHAIN MANAGEMENT

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**July 6 – July 17**
**Monday - Friday (7:00 am – 10:00 am)**

## DESCRIPTION

Blockchain (BCT) has emerged as the technology that can provide traceability, provenance and transparency in business operations, across complex global supply chain ecosystems, where leanness, agility, and timely decision-making are crucial, in addition to achieving social sustainability. It is being considered as one of the most disruptive technologies representing decentralised environment for transactions, self-executing digital contracts (smart contracts) and intelligent asset management over the internet, providing a single-view to the entities (users) involved in the transaction. Therefore, the key characteristics of the BCT will significantly impact the organisation governance, supply-chain relationships, operations strategy, digital transformation pathway and existing supply-chain business models. BCT when integrated with other technologies such as Internet of Things, Big data analytics, and Artificial intelligence, will help to increase the efficiency of supply chain through agile data-driven decision-making based on high quality data and further facilitating supply chain transparency, which will also afford product traceability, authenticity and legitimacy, and enhance sub-supplier transparency, which will alleviate social sustainability problem in multi-tier supply networks.

The aim of the module is to provide the learners with deeper understanding of the Blockchain technology, its wider impact and role in contemporary business organisations, in particular complex global supply chain eco-system and achieving Sustainability Development Goals. Learners will be immersed into the business and management literature concerning Blockchain, its application and adoption, which will involve critical assessment of the existing solutions [theoretical, conceptual and practical], implications and barriers to adoption (from the perspective of consumers, business, policy and decision-makers).

## OBJECTIVES

On successful completion of this module, students will be able to

**LO1:** Understand the Blockchain technology and its myriad applications in various business contexts, including operations and supply chain management

**LO2**: Critically assess the role and implications of Blockchain technology from the perspective of different stakeholders such as business practitioners, policy makers and consumers. **LO3:** Outline and identify the impact of using Blockchain technology on achieving business productivity and Sustainable Development Goals (SDGs)

**LO4:** Justify and communicate the implications and considerations to adopt Blockchain technology supported by suitable evidence-based arguments.

## METHODOLOGY

Lectures will be used to discuss, critique and debate key concepts. Lectures will be supplemented with live demonstrations, short videos and activities to enhance engagement of students and encourage group discussion. Students will have the opportunity to use a digital story-telling platform to engage with decision-making in the context of applications and impact of Blockchain technology.

Virtual workshops will include exercises intended to teach problem solving and skills to effectively construct and present an argument. They also allow students to work on the assessment with guidance and help from the tutor. These are intended to be interactive sessions giving you a chance to try out these techniques with the help of the tutor.

Case-study readings drawn from research literature are meant to help you understand applications and critical analysis of both existing and futuristic applications. You are expected to read these and use them (suitably) in your assessed coursework. These will be discussed during the taught sessions, in particular the workshops.

There will be an virtual assignment clinic, which will focus on providing you with all the information and advice for the assessed elements, including discussion pertaining to final submission deliverables, marking criteria and rubrics. The sessions will be interactive and will answer any queries raised by the students.

Digital backchannel system VEVOX will be used during the taught sessions to increase engagement with the learners during these sessions. Microsoft Teams will be used as a collaboration tool outside the taught sessions.

# EVALUATION

The assessment will include four elements.

**Element 1:** Online Continuous Assessment [Problem-based Learning] – 30%.
The aim of the online assessment is to demonstrate understanding of the Blockchain technology, business and societal applications of the technology and role of the technology in terms of building sustainable communities. This will provide the opportunity to explore beyond the taught contents, and will comprise of daily worksheets to be completed individually. **Learning objective assessed: LO1 and 2**

**Element 2:** Group Poster– 30%.
The aim of the assessment is to design, develop and present a poster reflecting on the impact of the technology in a specific real-life business and sustainability context, drawing upon the case-studies, applications and theories discussed during the taught sessions. A marking rubrics will be made available to the students, which will provide more information on the grading criteria. Students won't be required to do a presentation; therefore the poster must be self-explanatory and designed to fit the purpose and audience. **Learning objective assessed: LO2, 3 and 4**

**Element 3:** Individual Assessment – 40%.
The objective of the assessment is to engage with deeper analysis of the role, implications, drivers, barriers to adoption of the technology and discuss within three distinct themes: (1) operations and supply chain management theories; (2) facilitating achieving one or more Sustainability development goals from managerial perspective; (3) integration with other contemporary technologies such as Big data analytics, Artificial Intelligence, Virtual reality and Internet of Things. Students will be required to write an engaging web blog for this assessment. The blog provides opportunity to use text, videos, pictures and other media contents to communicate and showcase their ideas, knowledge and understanding of the taught contents. For the purpose of this assessment, students may use free web blogging builders such as WIX, WordPress, Blogger, Weebly etc. **Learning objective assessed: LO1, 2, 3 and 4**

**Word Limit:** Not more than 2000 words, excluding media contents, blog title, references and citations, headers/sub-headers, and captions for figures/tables/media content
**References** in Harvard FORMAT

## IMPORTANT NOTE
Due to Universidad de los Andes policies, the final grading system for all the 2020 International Summer School courses will be Pass/ Fail. Your final grade will be defined in accordance to the accomplishment of the courses learning goals. The individual numerical grades will serve as a key input for the definition of the Pass/ Fail grade and feedback.
Definition for Pass/Fail Grade for each element of the assessment
- **A score of** 50% or above will be classed as a Pass Grade
- **A score of** 49% or less will be classified as a Fail grade

## PRE-REQUISITES

N/A

**Universidad de los Andes** | Vigilada Mineducación
Reconocimiento como Universidad: Decreto 1297 del 30 de mayo de 1964.
Reconocimiento personería jurídica: Resolución 28 del 23 de febrero de 1949 Minjusticia.