

# 4IR ETHICS FOR PROFESSIONALS IN BUSINESS



UNIVERSITY  
OF  
JOHANNESBURG

SCHOOL OF ACCOUNTING



**The Future  
Reimagined**

## INTRODUCTION

The use of artificial intelligence(AI) by business professional has an impact on our everyday lives. Businesses professionals are embracing Artificial Intelligence technologies in their day-to-day operations to make vital business decisions. However, in adopting these new technologies, there are naturally concerns which may arise. One such concern that arises is the ethical dimensions that a business professional may encounter when developing or deploying AI technologies to make business decisions.

A need was identified by the School of Accounting to create a short learning program for professionals in business concerning 4IR and ethics for Artificial Intelligence. As the world races, there is a risk that professionals in business would not be aware of ethical dimensions that arise with Artificial Intelligence

Thus, this course will seek to develop knowledge for business professionals regarding various ethical approaches that need to be adopted in the development and deployment of AI tools including responsible innovation, data ethics and applied ethics in system design. In addition, the course identifies ethical concerns that culminates in the development of an AI ethical governance framework. This framework can be adopted by business professionals to ensure ethics is emended in all aspects of their AI journey.

**Course content:** The following topics are covered in this course:

- Business Ethics
- Ethics and Technology
- Responsible Innovation
- Data Ethics
- Applied ethics in system design
- Identification of AI ethical concerns
- AI ethical governance framework

## HOW ARE THESE TOPICS ADDRESSED WITHIN THE COURSE?

The first unit is intended to guide students on ethics within business. Ethics is an integral part of doing business, it is therefore context is provided to understand what ethical conduct is and how to apply it in the business world. This will help you understand your own responsibility for corporate integrity and business ethics specifically within the 4IR landscape.

In the second unit, Ethics and Technology will be addressed. This unit investigate the social context of technological development as well as ethical issues that need to be considered during the design process of developing 4IR tools. The unit concludes with an overview of contemporary ethical issues in technology.

Our focus in the third unit will be on responsible innovation. In this third unit of the course, we will examine the different paradigms of innovation and the three axes of responsible innovation. We will also investigate the process of becoming an innovative organisation while integrating new technologies in a responsible manner. In addition, the world commission on environment and development will be outlined. The unit concludes by mentioning some of the benefits and barriers of implementing responsible innovation for small and mid-size enterprises (SME's).

The fourth unit's focus will be on data ethics by investigating the need for it, as well as its foundations. We will study some key principles and issues in data ethics, such as data privacy, security, quality, and transparency. Finally, we will investigate practical aspects of data ethics to establish best practices and a framework for data ethics.

In this fifth unit, we will outline the importance of ethics in the practice of design. We will discuss the key-value implications and different ethical positions in technological design. We will then investigate different frameworks for ethically integrated design, focussing on two popular emerging approaches, namely, ethically aligned design, and value-sensitive design. Finally, we will delve into the details of each of these approaches in ethical design

The sixth unit investigates global initiatives developing AI governance frameworks. These include, those developed worldwide, by large corporations, academia, working groups and even countries. This will establish ethical practices for the use of AI. The unit identifies overarching ethical values, principles and concerns that could facilitate the creation of an ethical AI environment.

In this final unit of the course, we will discuss the elements that could form part of a governance framework for the use of Artificial Intelligence (AI). Various ethical governance processes will be established in the categories of Transparency, Machine Bias, Privacy, Beneficial AI, and Responsible AI. These categories and process established culminates in the development of an AI ethical governance framework for use in business.

## **HOW IS THIS COURSE STRUCTURED?**

Each unit comprises different video content that you are required to view. Furthermore, as part of each unit, there are additional resources that you will need to explore. These include research articles, websites, and videos. These resources add to the discourse for each topic covered. At the end of each unit you will be required to complete a quiz to move to the next unit. In addition, there is an overall quiz to compete at the end of the course.

## **WHAT IS THE EXPECTED DURATION OF THE COURSE?**

The course duration is eight (8) weeks from the date of registration to completion. It will take approximately 40 hours to complete. At the end of each unit, you will be required to complete a quiz. These quizzes will count toward a final grade. You will be awarded a

