DEBIZ (Exam DEB-110): Data Ethics for Business Professionals

Course Number:

CNX0014

Course Length:

6 hours instructional time
Content is designed to be presented as a full day class, or in three 90-minute sessions by lesson.

Overview

The power of extracting value from data utilizing Artificial Intelligence, Data Science and Machine Learning exposes the learning differences between humans and machines. Humans can apply ethical principles throughout the decision-making process to avoid discrimination, societal harm, and marginalization to maintain and even enhance acceptable norms. Machines make decisions autonomously. So how do we apply ethical principles to data driven technology? This course provides business professionals and consumers of technology core concepts of ethical principles, how they can be applied to emerging data driven technologies and the impact to an organization which ignores ethical use of technology.

Target Student

This course is designed for business leaders and decision makers, including C-level executives, project and product managers, HR leaders, Marketing and Sales leaders, and technical sales consultants, who have a vested interest in the representation of ethical values in technology solutions. Other individuals who want to know more about data ethics are also candidates for this course. This course is also designed to assist learners in preparing for the CertNexus® DEBIZ™ (Exam DEB-110) credential.

Prerequisites

To ensure your success in this course, you should have a working knowledge of general business concepts and practices. You should also have a basic understanding of Artificial Intelligence and or Data Science. You can obtain this level of skills and knowledge by taking the following CertNexus courses:

AIBIZ™ Artificial Intelligence for Business Professionals
DSBIZ™ Data Science for Business Professionals

Course Content

Each lesson includes activities, indicated in orange and may include resources for learners to integrate ethical practices into their own organization, indicated in blue.

Introduction to Data Ethics

- Define Ethics
- Define Data
- Define Data Ethics
- Principles of Data Ethics
- The Case for Data Ethics
- Identifying Ethical Issues

Ethical Principles

- Ethical Frameworks
- Applying Ethical Frameworks
- Privacy, Fairness, and Safety
- Applying Privacy, Fairness, and Safety Principles
- Algorithms and Human-Centered Values
- Discussing True and False Positives and Negatives
- Discussing Accuracy and Precision
- Discussing Correlation and Causation
- Transparency and Explainability: The Black Box Problem
- Discussing Black Box Parallels
- Inclusive Growth, Sustainable Development, and Well-Being
- Examining a Tech for Good Organization
- Improving Ethical Data Practices

Sources of Ethical Risk

- Bias and Discrimination
- Case Study: Allegheny Family Screening Tool
- Data Surveillance
- Safety and Security
- Case Study: PredPol

Business Considerations

- Data Legislation
- Manage the Effects of Data
- Case Study
- Embed Organizational Values in the Data Value Chain
- Building a Data Ethics Culture/Code of Ethics
- Stakeholder Checklist