

M01 – Introduction to AI

Introduction to Artificial Intelligence

Assignment Guidelines: This task is to examine the influences of Artificial Intelligence (AI) theory, algorithms, and strategic implementation to achieve positive transformation and sustainable competitive advantage across business domains. Students are expected to critically analyse the impact of foundational AI technologies, machine learning paradigms, and data-driven automation on business strategy, operational efficiency, decision-making quality, and organisational outcomes. This account is to examine useful operational functions of Artificial Intelligence alongside practical implementations within modern corporate environments.

Submission Format:

- Type: Detailed project report
- Font: Times New Roman, Size 12, Double Spaced
- Word count: 3000 – 4000 words
- Submission Deadline: To be announced by the respective professors

Assessment Criteria:

- Understanding and application of fundamental AI concepts and approaches – 20%
- Critical analysis of AI applications in business and management contexts – 25%
- Application of relevant academic literature, evidence, and industry case studies – 20%
- Strategic insight, ethical considerations, and quality of recommendations – 25%
- Structure, academic writing, presentation, and APA referencing – 10%

Mandatory Sections:

- Title Page
- Table of Contents
- Abstract
- Introduction
- Literature Review
- Methodology
- Findings
- Discussion
- Conclusion
- References
- Appendices

Assignment Task – Choose ONE of the following written assignments:

Option 1: Algorithmic Bias and Data Ethics in Strategic Enterprise AI

Analyse the ethical, strategic, and governance challenges associated with deploying AI decision-making models in modern business settings. Your paper should:

- Identify and discuss the major ethical concerns in such applications, such as data bias, algorithmic opacity (the “black box” problem) and privacy erosion.

- Discuss the difference between classical rule-based decision support systems and contemporary probabilistic, machine learning-based (e.g., deep learning networks, automated screening procedures) architectures.
- Present examples of effective enterprise-wide ethical AI governance programs, as well as public cases where algorithmic bias resulted in significant reputational or legal harm.
- Discuss, with examples, the governance and ethical principles which have been demonstrated to be the most successful to date for enterprise leaders in governing AI systems responsibly.

Option 2: Generative AI as a Driver of Workforce Productivity and Business Model Innovation

Investigate the role of Generative AI (GenAI) technologies in reshaping enterprise workflows, driving productivity gains, and altering competitive landscapes. Your paper should:

- Evaluate the significance of generative models (such as large language models (LLMs), synthetic data generation) in knowledge-intensive, customer-facing, and creative industries of business.
- Examine the trade-offs among prebuilt commercial GenAI solutions, fine-tuned domain-specific models, retrieval-augmented generation (RAG) architectures, and custom open-source solutions.
- Comment on the correlation between enterprise spending on generative tools and workforce augmentation, talent upskilling, job productivity measures, and job displacement threats.
- Identify examples of large global companies with great GenAI integration programs such as Microsoft, Klarna or Salesforce.
- Recommend a cost-effective roadmap for GenAI adoption for small, medium and large enterprises evolving to AI-enabled operations.

Option 3: Predictive Analytics and Machine Learning in Supply Chain and Operations

Evaluate how predictive machine learning models and automated forecasting engines should be designed to optimize complex supply chain and operational workflows. Your paper should:

- Discuss the problems that arise when applying conventional, deterministic forecasting techniques and the new generation of machine learning-based predictive models in volatile market conditions.
- Evaluate the impact of various AI applications (such as demand forecasting, dynamic pricing, predictive maintenance and automated inventory management) on cost optimisation versus operational agility.
- Evaluate the impact of AI-based supply chain visibility on the overall satisfaction/filling reliability of a customer.
- Based on recent examples of successful data-driven companies (e.g., Amazon, Walmart, Zara) that employ predictive analytics to manage real-time inventory and logistics. Provide a unified framework to coordinate infrastructure operational workflow