

MBAN 570DE – FOUNDATION IN ARTIFICIAL INTELLIGENCE

Course title	Foundation in Artificial Intelligence				
Course code	MBAN 570DE				
Course type	Foundation course				
Level	2 nd Cycle				
Year / Semester	1 st or 2 nd / Fall, Spring				
Teacher's name	Angeliki Kokkinaki				
ECTS	0	Lectures / week	1/week	Laboratories / week	N/A
Course purpose and objectives	Provide a comprehensive understanding of artificial intelligence (AI) as a field, including its history, evolution, and current trends. Introduce students to foundational AI concepts such as machine learning, deep learning, natural language processing, and computer vision. Explore the broad spectrum of AI applications in various domains, including healthcare, finance, transportation, education, and entertainment. Analyze how AI is transforming industries by enhancing efficiency, enabling innovation, and creating new business opportunities. Discuss the potential risks and challenges posed by AI, including issues of bias, transparency, and accountability. Highlight the importance of ethical considerations in AI design, development, and deployment, emphasizing the need for responsible AI governance. Investigate how AI technologies can be used to address global challenges such as climate change, healthcare access, and economic inequality. Provide an overview of emerging trends in AI research, such as generative AI models, reinforcement learning, and autonomous systems. Equip students with the knowledge to critically assess the societal and cultural impact of AI, including its implications for privacy, employment, and human interaction. Offer practical insights into how AI skills can be applied in professional settings, preparing students for careers in AI-related fields.				
Learning outcomes	Articulate the definition of AI and explain its core concepts, including machine learning, deep learning, neural networks, and generative AI models like LLMs. Identify and analyze various AI applications and use cases, demonstrating how AI is transforming industries and impacting daily life. Evaluate the potential and implications of AI in business contexts, recognizing its role in driving innovation and efficiency. Discuss the ethical issues, limitations, and societal concerns related to AI, advocating				

	for responsible AI practices and governance. Explore career pathways in the AI field, understanding the skills and knowledge Required for various roles		
Prerequisites	None	Required	YES
Course content	Week 1 Introduction to Artificial Intelligence (AI) Explores the basics of AI and its growing importance in modern business. Week 2 Applications of AI Highlights practical uses of AI in industries like healthcare, finance, and transportation with real-world examples. Week 3 Core Concepts of AI Introduces key ideas like machine learning, deep learning, and AI's ability to process data and learn patterns. Week 4 AI in Business Transformation Explains how AI drives innovation and efficiency in business, with case studies and career opportunities. Week 5 Emerging Trends in AI Discusses new developments in AI, including advanced systems and future applications. Week 6 Ethics and Governance in AI Covers ethical issues, such as fairness, privacy, and responsibility, and how businesses can use AI responsibly. Week 7 Technical Underpinnings of AI Simplifies the technical foundations of AI, including data use and basic tools, without requiring deep technical knowledge. Week 8 AI and Society Examines how AI affects jobs, society, and relationships, with a focus on its impact on business. Week 9 Hands-on Applications Provides practical, simple exercises to explore how AI tools are used in business decision-making. Week 10 Project Allows students to apply what they've learned by solving a business problem using AI.		
Teaching methodology	Faculty lectures Problem-Based Learning (PBL) Case study analysis Student-led discussions Workshops and Labs		

Bibliography	Artificial Intelligence in Business Management, Teik Toe Teoh and Yu Jin Goh , Springer, 2023, 978-9819945573
Assessment	Final Exam Project Participation
Language	English