BUSINESS AND MANAGEMENT PROGRAMME
USING ARTIFICIAL INTELLIGENCE (AI) FOR BUSINESS

Course contact hours: 45
Recommended credits: 6 ECTS – 3 US
Language: English

Prerequisites

There are no prerequisites for this course.

Objectives and Contextualisation

Artificial Intelligence (AI) technologies and tools are already here to provoke a revolution in different areas of our lives, and business is one of them. In this course you'll learn how to use AI tools like ChatGPT to improve and optimize business processes. From generating ideas, marketing strategies, content creation to managing everyday tasks.

This course has a practical approach and is focused on discovering and learning how to use available AI tools and apps to optimize businesses.

The course also ensures that participants not only understand the technicalities and business applications of AI but also the broader social implications of these technologies in our future societies.

Competences
- Understand the basic principles and mechanics behind AI.
- Understand the impact of these technologies on the economy, business and society.
- Understand how businesses can leverage these technologies.
- Develop teamwork skills through group projects and activities.
- Give and receive constructive feedback to classmates.
- Practice research skills to find relevant sources and information.
- Develop reading skills that help understand and synthesize case studies.
- Develop oral presentation skills.
- Critical thinking skills.

Learning Outcomes

Students should have a comprehensive understanding of AI's role in businesses, be capable of critically analysing AI tools, and be proficient in designing and implementing AI-driven strategies.

1. Recall the major milestones in AI development and its historical context, outlining its evolution over time.

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2. Explain the underlying principles and mechanisms of various AI tools and how they can be integrated into different business processes.
3. Implement AI-driven tools and strategies in mock business scenarios, demonstrating their practical application in areas such as marketing, HR, and supply chain management.
4. Differentiate between various AI solutions, assessing their strengths, limitations, and suitability for diverse business needs.
5. Critically assess the ethical considerations of AI deployment in businesses, making informed decisions about its responsible use.
6. Design AI-integrated business strategies and plans, demonstrating innovative use of technology for optimizing operations and outcomes.
7. Recognize the implications of AI on the global economy, society and job market, proposing solutions to address potential challenges.
8. Investigate real-world case studies, distinguishing successful AI integrations from unsuccessful ones and identifying key learning points.
9. Formulate AI-driven marketing and content strategies, showcasing creativity and proficiency in using AI tools for content generation and customer engagement.
10. Construct a roadmap for a business's AI journey, evaluating future AI trends and ensuring the strategy aligns with predicted technological advancements.

Content

1. The humanistic foundations of AI.
2. Introduction to AI.
3. Introduction to AI tools in business.
4. AI in marketing.
   a. Market research and consumer insights.
   b. Product development and management.
   c. E-Commerce and retail.
   d. Customer service.
   e. Sales.
   f. Communication.
5. AI in content creation and curation.
6. AI in technology and software development.
7. AI in HR and talent management.
8. AI in team collaboration and productivity.
9. AI in manufacturing and operations.
10. AI in supply chain and logistics.
11. AI in financial analysis and forecasting.
12. AI in innovation and creating new ideas.
13. AI ethics and responsible use.
14. Creating a business with AI.
15. The future landscape of AI in business.

Methodology

Instructional strategy in this course includes a mixture of lectures, case study reviews, discussions, in-class exercises and collaborative projects.

During lectures we discuss the main theoretical concepts. The case studies provide further opportunities to expand on the understanding of theoretical concepts and how they apply in real-world situations, companies, industries and markets.

The projects give you the opportunity to: (1) rehearse and enhance your analytical and critical thinking skills, (2) enhance your ability to search, synthetize and present relevant information, (3) practice creative thinking, and strengthen your group-work and project management skills.

Your final grade is determined by your ability to understand the theoretical concepts presented through readings and discussed during class sessions and by your proven ability to apply these concepts to real-life situations and to the team projects developed during the course.

Activities

Directed:

Class sessions (practice)	20 hours
Class sessions (theory)	22 hours
Assessment	3 hours

Supervised:

Project and Cases	60 hours

Assessment

1. Exams (30%)
    a. Midterm exam: 15%
    b. Final exam: 15%
2. Participation: 20%
3. Preparation and presentation of case studies (25%)
4. Project: preparation and presentations (25%)

Midterm and Final Exam – The exams are a stimulus for the student's ongoing evaluation and will cover the material studied during the course (theory and practice classes).

Cases: case studies are part of the learning methodology. During the course, different cases will be worked on that refer to real situations in the economy and business world and reflect situations in the context of crypto economy. These cases are discussed in depth, presented and discussed in class and require very high student involvement to be successful, both in preparing, presenting, or participating in the presentation discussion of other groups.

Project: allows students to thoroughly analyse and develop a business project using AI tools.

Presentation of cases and the different parts of the project (quality, originality, use of different visual supports) as well as commitment to them will be evaluated. All case information should be included in the presentation and appropriately reference the different sources.

Participation: participation in class sessions is critical to the success of the course. That is why the participation grade will depend on:

- Quality input made during discussions or topics proposed by the teacher in class.
- Relevant questions asked during teacher presentations.
- Quality questions, or feedback made during classmates' presentations.

Assessment Activities

Title	Weighting	Hours	Learning outcomes
Midterm exam	15%	1,5	1-10
Final exam	15%	1,5	1-10
Case studies	25%	30	2,3,4,6,8,9,10
Project	25%	30	2,3,4,6,8,9,10
Participation	20%		1-10

Bibliography

Teacher presentations will be available through the virtual classroom.
New references will be added periodically to reflect updates in the field.

Required

Al-Ghourabi, AD (2023). Artificial Intelligence in Business and Technology: Accelerate Transformation, Foster Innovation, and Redefine the Future. AD Al-Ghourabi

Ganesan, Kavita (2022). The Business Case for AI: A Leader's Guide to AI Strategies, Best Practices and Real-World Applications. Opinosis Analytics Publishing

Harari, Y. N. (2017). Homo Deus: A Brief History of Tomorrow. Harper.

Lamarre, Eric et al. (2023). Rewired: The McKinsey Guide to Outcompeting in the Age of Digital and AI. Wiley

Roetzer Paul, et al. (2022). Marketing Artificial Intelligence: AI, Marketing, and the Future of Business. Matt Holt

Recommended

Daugherty, Paul R. et al. (2018). Human + Machine: Reimagining Work in the Age of AI. Harvard Business Review.

Harari, Y. N. (2015). Sapiens: A Brief History of Humankind. Harper.

Harari, Y. N. (2018). 21 Lessons for the 21st Century. Spiegel and Grau.

Katsov, Ilya (2023). The Theory and Practice of Enterprise AI: Recipes and Reference Implementations for Marketing, Supply Chain, and Production Operations 2nd ed. Grid Dynamics.

Pagani, Margherita (Editor) (2023). Artificial Intelligence for Business Creativity. Routledge.

Venkatesan, Raj et al. (2021). The AI Marketing Canvas: A Five-Stage Road Map to Implementing Artificial Intelligence in Marketing. Stanford Business Books.