

# **Artificial Intelligence in Business Master's program**

**training program**

**For students who start in the fall semester of 2026/2027**



# Artificial Intelligence in Business Master's program

**Valid: for students starting in semester 2026/2027/1**

## **General information:**

**Supervisor:** Réka Franciska Vas, Associate Professor

**Training location:** in Budapest

**Working hours:** full-time

**Training language:** english

**Whether you are enrolled in dual training:** no

**Specialisations:** No specialisations

## **Training and output requirements**

### **1. Title of the Master's programme:**

- a. in Hungarian: Mesterséges intelligencia az üzletben mesterképzési szak
- b. in English: Artificial Intelligence in Business master programme

### **2. The title of the certification:**

- a. in Hungarian: üzleti mesterséges intelligencia szaktanácsadója
- b. in English: Expert in Business Artificial Intelligence

### **3. Classification of the Master's programme:**

#### **3.1. Training area: economic sciences**

#### **3.2. The level of qualification attainable in the Master's programme:**

- master- (magister, master of science, abbreviation MSc-)
- according to ISCED 2011: 7
- according to the European framework: 7
- according to the Hungarian qualifications framework: 7

#### **3.3. International Standard Classification of Education field of education code (ISCED-F 2013): 0488**

#### **3.4. Degree orientation: balanced (40-60 percent)**

#### **4. Training duration, in semesters: 2 semesters**

#### **5. The number of credits to be completed for the Master's degree: 60 credits**

#### **6. Master's degree training objectives and professional competences:**

##### **6.1. Training objectives:**

In order to improve overall organizational effectiveness, the program aims to develop highly skilled professionals who can actively support organizations' transformations driven by AI and digitalization. Its goal is to give graduates a thorough understanding of artificial intelligence (AI) concepts, domains, and applications, with an emphasis on how AI is incorporated into strategic planning and business process development. Participants will gain the theoretical understanding and practical skills required to plan, create, and execute cutting-edge AI solutions at the organizational, technological, and strategic levels. The use of AI in important business domains such as supply chain management, marketing, product development, finance, and human resource management is given particular attention. Graduates will be well-equipped to pursue doctoral-level studies and will have the knowledge necessary to contribute to academic research as well as applied industry projects.

##### **6.2. Attained professional competences:**

###### **6.2.1. Graduates will have**

###### **a) knowledge:**

- Deep understanding of artificial intelligence's (AI) theoretical underpinnings, key subfields, and significant business applications, along with the knowledge of its fundamental concepts, working mechanisms, and strategic context to pinpoint particular industries and procedures where AI adoption can yield significant operational and business benefits.
- Mastery of the mathematical, statistical, and technological foundations of data-driven decision support; thorough comprehension of the theoretical foundations, classifications, and practical applications of machine learning; and competence in the processes for choosing, assessing, and analysing models in intricate business settings.
- Deep understanding of the generative artificial intelligence's technical underpinnings, operation, possible use cases, and inherent risks, with a focus on large language models and agent-based systems.
- Comprehensive knowledge of the leadership, communication, human resource, sustainability and strategic approaches needed for the successful organizational adoption of AI, including risk management frameworks, organizational maturity assessment and strategic review principles, as well as techniques for reorganizing job roles and organizational structures.
- Familiarity with the software tools and platforms used in AI development; awareness of the challenges of interdisciplinary collaboration; familiarity with the life cycle, leadership requirements, and characteristics of AI projects; and comprehension of the principles of integrating project outcomes into corporate infrastructure while also addressing the related business and regulatory risks.

- Advanced understanding of the theoretical underpinnings of the societal and environmental effects of AI, such as the role of biases, ethical standards for AI development and application, and national and international regulatory frameworks (such as the EU AI Act), as well as the capacity to evaluate and implement these frameworks in real-world scenarios.

- High-level proficiency in the concepts and techniques of strategic planning, problem-solving, usability evaluation, and the organizational deployment of R&D projects and AI-driven innovations, including the use of best practices, the identification of crucial success factors throughout the project life cycle, and techniques for organizational and technological integration.

**b) skills:**

- Capacity to recognize and evaluate intricate organizational issues and business problems where AI solutions can yield significant business value, as well as to create focused, creative AI-based proposals in line with strategic business goals while keeping in mind issues of ethics and sustainability.

- Apply, create, and improve non-generative machine learning models to facilitate data-driven decision-making while guaranteeing the models' reproducibility, transparency, and regulatory compliance when used in commercial settings.

- Design and develop generative AI models and solutions, test their effectiveness and suitability for a variety of business processes, and critically assess the possible advantages and disadvantages of implementing them and implement techniques for optimizing, integrating, and assessing these technologies across a variety of business domains.

- Create a long-term AI sub-strategy that promotes innovation and maintains organizational competitiveness, as well as to analyse and evaluate the direct and indirect effects of AI technologies on business strategy.

- Oversee the smooth integration of AI solutions into corporate infrastructures while managing and coordinating AI development projects in line with corporate strategy, guaranteeing explainability, versatility, and thorough multi-channel communication of results—in textual, visual, and verbal formats.

- Capacity to create rules for responsible AI use that respect the values of justice, openness, and data protection; and to critically examine the legal, ethical, social, and sustainability aspects of implementing AI in corporate settings.

- Independently adapt knowledge to new and unfamiliar tasks by using established techniques and prior expertise; the capacity to identify research, development, and innovation opportunities; the ability to establish strategic milestones and actively support their implementation.

**c) attitudes:**

- Dedication to striking a balance between the ethical use of AI and the creation of business value, with a focus on social responsibility, data protection, and transparency.

- Readiness to embrace the most recent developments in artificial intelligence in a variety of business and organizational contexts, as well as openness to new technological approaches.

- Shown a dedication to and interest in interdisciplinary cooperation, encouraging communication and knowledge sharing among disciplines to guarantee the effective deployment of sophisticated AI systems.

- Acknowledgement of the vital significance of quality control, ongoing model behaviour monitoring, responsible innovation, and the creation of long-term, dependable, and sustainable AI solutions.

**d) autonomy and responsibilities:**

- Take full professional responsibility for one's decisions and to make independent, well-informed decisions on intricate business, technological, and ethical issues pertaining to artificial intelligence.

- Plan, direct, and oversee AI development projects with a strong business focus, making sure they are in line with strategic organizational objectives and thoughtfully taking into account the effects on the organization and society.

- Accountability for how AI systems work and for the effects of their implementation and use, with a focus on data security, risk management, and decision support.

- Effectively communicate with executive and specialist audiences about the opportunities, risks, and moral conundrums related to the use of artificial intelligence, as well as to formulate and express expert opinions.

**7. The Master's programme's professional properties, the scientific fields and areas that the training is based on, and their credit proportions:**

**7.1. Business administration studies: 20-30 credits**

Process management, organisational and operational development, strategy management, project management, business applications of artificial intelligence, sectoral applications, ethical and legal compliance

**7.2. Mathematics, statistics: 5-15 credits**

Linear algebra, multivariate statistics, basics of machine learning

**7.3. Computer science and artificial intelligence: 15-25 credits**

Data preparation, development and application of artificial intelligence models across the life cycle, data visualisation and storytelling, interpretability and explainability of models, artificial intelligence languages, platforms and their integration

**7.4. Number of credits allocated to the thesis or dissertation: 6 credits**

**8. Internship requirements: –**

**9. Specific features that distinguish the training:** The language of the training is English.

**10. For studies in a foreign language, the level of foreign language proficiency to be achieved:** Advanced (C1) level proficiency in English

**11. The knowledge on which the credit is based is based on a comparison of the knowledge and competences required by the credit transfer committee of the higher education institution for the completion of the studies, and the knowledge and competences acquired previously in the following areas:**

**11.1. The following courses accepted as prerequisites for admission to the master's program, without a preliminary credit recognition procedure and with full credit value:**

- applied economics,
- business informatics,

- data science in business,
- physics,
- physicist engineering,
- mathematics,
- computer science engineering,
- computer science,
- computer science operational engineering,
- electrical engineering

Bachelor's degree courses.

**11.2.** Based on a comparison of the knowledge accepted as prerequisites for admission to the master's program and serving as the basis for credit determination, the bachelor's programs not listed in point 11.1. as well as those basic and master's degree programs, or programs under Act LXXX of 1993 on Higher Education, which are accepted by the CTC based on a comparison of the knowledge serving as the basis for credit determination (during the preliminary credit recognition procedure).

**11.3.** The **minimum number of credits** required for admission to the master's program is **36 credits**, based on a comparison of knowledge acquired in previous studies or in a thesis, or through previous studies or equivalent non-formal, informal learning or work experience with the knowledge required for the program in the following areas:

- methodology knowledge (including courses applying the methods used: analysis, linear algebra, probability theory, statistics): **12 credits** (of which a maximum of 6 credits can be substituted)
- programming skills (knowledge of any programming language, primarily Python or R): **12 credits** (of which a maximum of 6 credits can be substituted)
- knowledge of economics (business economics, accounting, finance, marketing, management and organization): **12 credits** (of which 12 credits can be substituted).

Admission to the master's program requires that the applicant have **24 credits** in the above areas based on their previous studies.

Missing credits in the master's program must be earned in accordance with the study and examination regulations of the higher education institution.

## **12. Degree thesis/ Dissertation**

The aim of the dissertation is to certify the student's knowledge and expertise in a chosen topic, scientific data collection, systematization, analysis and processing related to the chosen topic, discussion of the chosen phenomenon or problem, hypothesis creation, problem solving, analysis of alternative hypotheses, analysis and in refuting the counter-arguments, in a coherent, consistent, language-oriented written explanation of his thoughts, views, positions, statements.

## **13. Type of Degree thesis**

project-type thesis- project thesis

## **14. Requirements for the issue of a final certificate**

The University will issue a final certificate to the student who has obtained

- to the student who has fulfilled the requirements contained in the study and examination regulations and
- obtained the required credits

## **15. Conditions for admission to the final examination**

Joint conditions for admission to the final exam:

- a) obtaining a final certificate,
- b) submission of the dissertation by the deadline,
- c) evaluation of the dissertation with a grade other than „fail”,
- d) registration for the final exam by the deadline,
- e) the student has no overdue payment debt to the University for the given training,
- f) accounted for with assets owned by the University (borrowed books, sports equipment, etc.).

A student who has not fulfilled any of the provisions of the points a)-f) cannot be admitted to the final examination.

## **16. Parts of the final exam**

The final exam consists of an oral defence of the thesis work

## **17. Determining the result of the final exam**

The arithmetic mean of the following two grades, rounded to two decimal places:

- a) the grade given to the thesis by the reviewer (s) - determined with a five-point qualification - in case of several reviewers the average of the marks of the reviews is rounded to two decimal places, and
- b) the grade obtained for the defense of the dissertation, for the answers to the questions related to the dissertation - established with a five-level qualification.

## **18. Components of diploma qualification, method of calculation**

The result of the diploma is the arithmetic mean of the following two digits, rounded to two decimal places:

- a) the credit-weighted average of the marks of the compulsory and compulsory elective subjects (if the student has taken more than the compulsory elective subjects, then all the subjects taken) in the amount of credits prescribed in the curriculum, and
- b) the result (grade) of the final examination.

## **19. Conditions for issuing a diploma**

A prerequisite for the award of a diploma certifying the completion of higher education studies is the successful completion of the final examination.

**MNMEIN26ABP - Artificial Intelligence in Business master programme in Budapest, in English, full time training Curriculum for 2026/2027 (1.) fall semester for beginning students**

| Subject Code   | Subject Name                                     | Type | Number of hours per week |         | Credits | Evaluation | Fall or Spring Semester | 2025/2026 Academic year |                 | Credit | Course leader        | Institute   | Instructors  | Requirement |      | Equivalent subject |      | P.O.S. |
|--|--|------|--------------------------|---------|---------|------------|-------------------------|-------------------------|-----------------|--------|----------------------|---|--|-------------|------|--------------------|------|--------|
|  |  |      | Lecture                  | Seminar |         |            |                         | 1                       | 2               |        |                      |   |  | Code        | Name | Code               | Name |        |
|  |  |      |                          |         |         |            |                         | Fall semester           | Spring semester |        |                      |   |  |             |      |                    |      |        |
|  |  |      |                          |         |         |            |                         |                         |                 |        |                      |   |  |             |      |                    |      |        |
| Core courses   |  |      |                          |         |         |            |                         | 24                      | 24              | 48     |                      |   |  |             |      |                    |      |        |
| Business and management professional core courses                      |  |      |                          |         |         |            |                         | 6                       | 18              | 24     |                      |   |  |             |      |                    |      |        |
| VEZ0138NAMB  | Business Applications of Artificial Intelligence | C    | 2                        | 2       | 6       | pg         | fall                    | 6                       |                 | 6      | Péter Móricz         | Institute of Strategy and Management                |  |             |      |                    |      | no     |
| ADIN055NAMB  | AI and Data Strategy                             | C    | 2                        | 2       | 6       | ex         | spring                  |                         | 6               | 6      | Réka Franciska Vas   | Institute of Data Analytics and Information Systems |  |             |      |                    |      | no     |
| VEZ0139NAMB  | Artificial Intelligence Transformation           | C    | 2                        | 2       | 6       | pg         | spring                  |                         | 6               | 6      | Viktor Dörfler       | Institute of Strategy and Management                |  |             |      |                    |      | no     |
| ADIN184NAMB  | Lifecycle of AI Applications in Business         | C    | 2                        | 2       | 6       | ex         | spring                  |                         | 6               | 6      | Ádám Balázs Csapó    | Institute of Data Analytics and Information Systems |  |             |      |                    |      | no     |
| Mathematics, statistics professional core courses                      |  |      |                          |         |         |            |                         | 6                       | 0               | 6      |                      |   |  |             |      |                    |      |        |
| ADIN059NAMB  | Analytics and its Enabling Technologies          | C    | 2                        | 2       | 6       | pg         | fall                    | 6                       |                 | 6      | Andrea Kő            | Institute of Data Analytics and Information Systems |  |             |      |                    |      | no     |
| Computer science and artificial intelligence professional core courses |  |      |                          |         |         |            |                         | 12                      | 6               | 18     |                      |   |  |             |      |                    |      |        |
| ADIN057NAMB  | Data Analysis and Modelling in Python            | C    | 2                        | 2       | 6       | ex         | fall                    | 6                       |                 | 6      | Szabina Eszter Fodor | Institute of Data Analytics and Information Systems |  |             |      |                    |      | no     |
| ADIN185NAMB  | Operation of Large Language Models               | C    | 2                        | 2       | 6       | ex         | fall                    | 6                       |                 | 6      | Péter Racskó         | Institute of Data Analytics and Information Systems |  |             |      |                    |      | no     |
| ADIN186NAMB  | Agent Modelling and Prompt Engineering           | C    | 0                        | 2       | 6       | pg         | spring                  |                         | 6               | 6      | Ádám Balázs Csapó    | Institute of Data Analytics and Information Systems |  |             |      |                    |      | no     |
| Thesis (Core)  |  |      |                          |         |         |            |                         | 0                       | 6               | 6      |                      |   |  |             |      |                    |      |        |
| ADIN187NAMB  | Thesis (Capstone Project)                        | C    |                          |         | 6       | pg         | spring                  |                         | 6               | 6      | Réka Franciska Vas   | Institute of Data Analytics and Information Systems | Lilla Vicsek, Institute of Social and Political Sciences |             |      |                    |      | yes    |
| Elective courses (6 credit)  |  |      |                          |         |         |            |                         | 3                       | 3               | 6      |                      |   |  |             |      |                    |      |        |
| IOK0001NABB  | Hungarian Language SHI I.*                       | E    | 0                        | 4       | 3       | pg         | fall                    | 3                       |                 | 3      | Judit Magyar         | Centre of Foreign Language Education and Research   |  |             |      |                    |      |        |
| IOK0004NABB  | Hungarian Language SHI II.*                      | E    | 0                        | 4       | 3       | ex         | spring                  |                         | 3               | 3      | Judit Magyar         | Centre of Foreign Language Education and Research   |  |             |      |                    |      |        |
| TS00001NMMB  | Sports/Physical Education                        | E    | 0                        | 2       | 2       | pg         | fall                    | 2                       |                 | 2      | Csaba Vladár         | Centre for Physical Educations and Sports           |  |             |      |                    |      |        |
|  | Elective courses                                 | E    |                          |         |         |            | spring                  |                         |                 |        |                      |   |  |             |      |                    |      |        |
| Total credits (semester)   |  |      |                          |         |         |            |                         | 27                      | 33              | 60     |                      |   |  |             |      |                    |      |        |

**Remarks**

Type: C=compulsory courses, CE=core elective courses, E=elective (optional) courses, CR=criterion courses

Methods of assessment: ex=exam (exam at the end of the semester, but other forms of assessment are possible during the semester), pg=grade based on the practical assignments given during the course of the semester, s=signature

A subject that can be completed in a preferential study order (PSO) on the basis of Section 92 of the Study and Examination Regulation (SER)

**Physical education**

Students wishing to take part in sport can take one semester without paying a fee and the following semesters the students can only take physical education with the payment of a specified fee.

**Foreign language**

During their studies, students can learn a language in the form of paid subjects within the framework of elective subjects.

**Curriculum**

It is recommended to include the subjects in the schedule according to the sample curriculum. The student may deviate from this, taking into account:

1. the pre-study order,
2. semester of announcing subjects
3. Completion of an average of 30 credits per semester
4. In addition to the compulsory subjects, students may take elective subjects from the offer of elective subjects (see Neptun) as well as foreign languages.
5. A minimum of 2/3 of the required amount of credit must be completed at Corvinus University.

\* Hungarian Language is a compulsory subject for the students participating in the Stipendium Hungaricum scholarship program in the first two semesters.

The detailed rules related to the admission of the subjects and the completion of the subjects are included in the Study and Examination Regulations!

Please note that curriculum changes are possible!