

# Course for PhD students

at Vytautas Magnus University  
Faculty of Bioeconomy Development



VYTAUTAS MAGNUS  
UNIVERSITY  
AGRICULTURE  
ACADEMY

May 18-22<sup>nd</sup>, 2026

Kaunas, Lithuania

## Erasmus+ BIP Course on Modelling with Artificial Intelligence (AI)

**Learning objectives:** basic knowledge and skills of central topics in AI modelling.

Registration deadline February 17<sup>th</sup>, 2026

### Registration

This course will present such central fields in AI as neural networks and fuzzy systems, as well as evolutionary computing methods for optimization (e.g., genetic and bacterial-evolutionary algorithms). The large language models are also studied briefly. Their applications to decision making, control and statistical analysis are also considered in particular within economics and agriculture. Thanks for these models, even complex and nonlinear systems may be studied fluently in a computer environment.

The corresponding traditional mathematical and statistical methods are also considered to some extent for the sake of comparison. In particular, how cluster analysis, linear regression analysis, logistic regression analysis, time series analysis, and decision-making models may be studied and replaced with the AI models.

In computer simulations and demos Copilot, ChatGPT, Matlab, R (with Jamovi) and SPSS are used (no previous knowledge on these is required, R and Jamovi are free software).

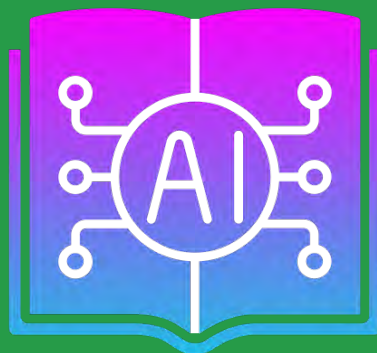
**Virtual component:** 11/05/2026 (Introduction to the course)

**Physical mobility part:** 18/05/2026 - 22/05/2026

**Extent of the course:** 3 ECTS

**Target group of the planned course:**

PhD Students in Economics and related fields,  
PhD students in Informatics, PhD students in  
other fields of study.



### **Team of teachers:**

### **Responsible persons and teachers:**

1. Prof. Vesa A. Niskanen, VMU, Kaunas, University of Helsinki and Latvia University of Life Sciences and Technologies.
2. Prof. Chister Carlsson, IAMSR, Finland.
3. Prof. Laszlo T. Koczy, Budapest University of Technology and Economics, Hungary.
4. Prof., Rector Irina Arhipova, Latvia University of Life Sciences, Latvia.
5. Academician Janusz Kacprzyk, Polish Academy of Sciences, Poland.

**Requirements:** English language level B2.

**Available funding:** Erasmus+ BIP mobility grant to be managed by the sending institution (please make an inquire at your institution's international office) 79€ per day.

Costs to be covered by students: Travel to Kaunas, accommodation, and meals.  
*Lunch is included in the program and provided by VMU Agriculture Academy.*

### **Coordinator and contact person:**

Dr. Monika Medikienė, International Coordinator.  
E-mail: [monika.medikiene@vdu.lt](mailto:monika.medikiene@vdu.lt);

### **Course leader:**

Dr. Vesa Niskanen,  
E-mail: [vesa.a.niskanen@gmail.com](mailto:vesa.a.niskanen@gmail.com), [vesa.niskanen@vdu.lt](mailto:vesa.niskanen@vdu.lt).

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