

# Build your own AI-powered chatbot without coding

Lecturer: Maria Chiara Debernardi

## Language

English

## Course description and objectives

Chatbot development offers a valuable skillset for future professionals seeking to enter today's Al-driven job market.

In this course, you will learn how to build an Al-powered chatbot using KNIME, a free and open-source data science platform. You will not need to write any code to complete this course thanks to the versatility of KNIME nodes, which will serve as building blocks for your chatbot. From text preprocessing to open-source Large Language Models adoption, you will learn how to seamlessly assemble these components to create chatbots capable of handling a wide range of tasks in a company.

At the end of the course, participants will be able to:

- create a functional chatbot using KNIME's intuitive interface
- understand the fundamentals of Natural Language Processing and apply them to chatbot development
- integrate prompt-based LLMs and a company's internal information into a chatbot to improve its conversational abilities

#### **Audience**

This course is open to all Bocconi students. It is particularly suited for:

- students who are curious about generative AI and its potential applications in a business context
- those who appreciate the convenience of a no-code approach to Al development
- those who want to understand where conversational generative tools come from





## **Prerequisites**

While no coding background or knowledge of KNIME are required, having completed the Computer Science course (30424) or an equivalent, can provide a significant advantage.

#### **Guidelines**

## **Registration:**

You can sign up for the course only through the yoU@B student Diary, in the "**Signup for various activities**" box (please note that the box appears only when registrations open. Before then it will not be visible).

You can only cancel your registration by Diary **no later** than the registration deadline for the course itself. <u>No other means of cancellation are allowed</u>.

Registration will be confirmed a few days before the start of the course through a message posted in the yoU@B student Diary.

#### Attendance:

- Attendance of **75% or more** of class hours: obtainment of the **Open Badge**
- Attendance of less than 25% of class hours: Exclusion list

#### **Duration**

10 hours

## **Teaching Mode**

This course will be only taught **in person**. Distance mode will not be provided.

#### Calendar

Lecture	Date	Time	Room
1	Wed 29/10/2025	18.15 - 19.45	D (Sarfatti)
2	Wed 05/11/2025	18.15 - 19.45	D (Sarfatti)
3	Wed 12/11/2025	18.15 - 19.45	D (Sarfatti)
4	Wed 19/11/2025	18.15 - 19.45	D (Sarfatti)
5	Wed 26/11/2025	18.15 - 19.45	D (Sarfatti)

**Note**: lessons will be held in the traditional room, and **all the students must bring their own device**.





## Syllabus of the course

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## Lecture Topics

## Under the hood of GenAI: text analysis

- GenAl foundations
- NLP: a gentle full immersion
- Doing NLP with KNIME

## 2 Large Language Models

- Intro to LLM models
- OpenAl and the other providers
- Hugging Face and KNIME integration

#### 3 GenAl and chatbots

- Chatbots: origins and developments
- Building a basic chatbot UI with KNIME

#### 4 Al powered chatbot

- LLM vulnerabilities
- Retrieval Augmented Generation (RAG)
- Retrieval pipeline in KNIME

## 5 Adding privacy

- Anonymizing sensitive data
- GPT4All: local computing

#### Software used

KNIME Analytics Platform (<u>knime.com</u>): latest version available (5.7.0 or higher) Download it from: <u>download-knime</u>

Please note that no registration is required, but you must accept the "terms and conditions" of the open-source license (please add the flag!) to download the KNIME version for your laptop's operating system.

# Suggested bibliography

Materials will be provided by the instructor during the course and will be accessible on Blackboard.





## **Available seats**

This activity is limited to **110** participants. Registration cannot be carried out once this number has been reached or after the registration period closes. Please remember that you may unsubscribe from ITEC courses only through the yoU@B Diary and only before the registration deadline.

