

# AI for Academic Research and Writing

**Lecturer: Ivan Renesto**

## Course language

English

## Course description and objectives

This course combines AI-powered research tools with advanced Microsoft Word skills, preparing Master of Science students to produce high-quality academic work efficiently and responsibly. It covers the complete AI-enhanced research workflow: discovering literature with semantic search, synthesizing findings with multi-document AI analysis, drafting and revising with AI assistance, formatting academic documents to Bocconi standards, and ensuring academic integrity in the AI era.

Upon successful completion of this course, students will be able to:

- Use AI tools to discover, summarize, and synthesize academic literature efficiently
- Structure research questions, arguments, and outlines with AI assistance
- Draft, revise, and improve academic writing using AI feedback while preserving academic integrity
- Format academic documents using advanced Microsoft Word features (styles, sections, TOC, citations)
- Integrate graphics, equations, tables, and cross-references into a well-structured document
- Detect AI-generated content, verify AI outputs, and apply proper disclosure practices
- Produce a complete, submission-ready final paper chapter leveraging AI-assisted research

## Audience

The course is open to students of the Master of Science Programs at Bocconi University and is part of the Enhancing Experience activities. Upon successful completion (attendance of at least 75% of the scheduled hours and passing the final assessment), students earn 2 credits and an Open Badge, sharable on the web (LinkedIn) or personal CV. It is specifically targeted at:

- Students who are about to start drafting their thesis

- Those who want to learn how to use AI responsibly in academic research and writing
- Students who want to produce academic documents effectively and quickly

## Prerequisites

It is required to know how to:

- Create a document with Microsoft Word
- Insert text, images, and tables
- Apply and edit basic text formatting
- No prior experience with AI tools is required.

## Duration

16 hours

## Teaching mode

This course will be held exclusively in synchronous, **in-person sessions**. Neither online participation nor video recordings will be provided.

Please note: The **final exam** will take place on the **last day of the course**. It will not be possible to take it remotely.

## Calendar

| Lecture | Date           | Time          | Room                 |
|---------|----------------|---------------|----------------------|
| 1       | Wed 28/10/2026 | 18.15 - 19.45 | N20 (L. Del Vecchio) |
| 2       | Wed 04/11/2026 | 18.15 - 19.45 | N20 (L. Del Vecchio) |
| 3       | Wed 11/11/2026 | 18.15 - 19.45 | N20 (L. Del Vecchio) |
| 4       | Tue 17/11/2026 | 18.15 - 19.45 | N20 (L. Del Vecchio) |
| 5       | Thu 19/11/2026 | 18.15 - 19.45 | N20 (L. Del Vecchio) |
| 6       | Tue 24/11/2026 | 18.15 - 19.45 | N20 (L. Del Vecchio) |
| 7       | Thu 26/11/2026 | 18.15 - 19.45 | N20 (L. Del Vecchio) |
| 8       | Tue 01/12/2026 | 18.15 - 19.45 | InfoAS05 (Roentgen)  |

## Syllabus of the course

| Lecture | Topics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Book reference |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 1       | <b>Introduction and AI-Powered Literature Discovery</b> <ul style="list-style-type: none"> <li>Course introduction and Bocconi research document guidelines overview</li> <li>Types of final papers and how to approach their design</li> <li>AI tools for academic research: Semantic Scholar, Elicit, Consensus</li> <li>AI-powered literature search vs. traditional keyword search</li> </ul> <b>Hands-on</b> <ul style="list-style-type: none"> <li>discover and organize relevant papers using AI tools</li> </ul>                             |                |
| 2       | <b>Literature Synthesis and Research Structuring with AI</b> <ul style="list-style-type: none"> <li>Google NotebookLM for multi-document analysis and synthesis</li> <li>AI-assisted summarization: extracting key findings across papers</li> <li>Structuring research questions and thesis outlines with AI (ChatGPT/Gemini)</li> <li>Techniques for productive AI dialogue on complex academic topics</li> </ul> <b>Hands-on</b> <ul style="list-style-type: none"> <li>Produce a structured literature synthesis from uploaded papers</li> </ul> |                |
| 3       | <b>AI-Assisted Academic Writing and Revision</b> <ul style="list-style-type: none"> <li>Drafting paper sections with AI support: introduction, literature review, methodology</li> <li>Maintaining academic tone, style consistency, and original voice</li> <li>AI for revision: improving clarity, coherence, and argumentation</li> <li>Perplexity AI for fact-checking and contextual research</li> </ul> <b>Hands-on</b> <ul style="list-style-type: none"> <li>Draft and iteratively refine an academic paper section</li> </ul>               |                |

| Lecture | Topics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Book reference |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 4       | <b>Document Structure and Formatting</b> <ul style="list-style-type: none"> <li>Advanced Microsoft Word: styles, multilevel lists, sections</li> <li>Even/odd pages, headers/footers, page numbering</li> <li>Creating and managing an auto-generated Table of Contents</li> <li>Managing fields, cross-references, and numbered captions</li> </ul> <b>Hands-on</b> <ul style="list-style-type: none"> <li>Structure an academic paper template with styles, TOC, and sections</li> </ul>                                                                                                                |                |
| 5       | <b>Graphics, Tables, Equations, and Citations</b> <ul style="list-style-type: none"> <li>Inserting and formatting pictures, diagrams, and graphic objects</li> <li>Creating mathematical equations (Equation Editor)</li> <li>Tabular structures and data presentation</li> <li>Managing citations and bibliography (Word's built-in citation manager)</li> <li>Footnotes, endnotes, and cross-references</li> </ul> <b>Hands-on</b> <ul style="list-style-type: none"> <li>Build a chapter with figures, tables, equations, and citations</li> </ul>                                                     |                |
| 6       | <b>Quality Control, Academic Integrity, and Finalization</b> <ul style="list-style-type: none"> <li>AI content detection tools: GPTZero, ZeroGPT — how they work</li> <li>Bocconi's academic integrity policies in the context of AI use</li> <li>Fact-checking AI outputs: detecting hallucinated citations and claims</li> <li>Tracking changes, reviews, and version management in Word</li> <li>Templates, saving, converting (PDF), and printing options</li> </ul> <b>Hands-on</b> <ul style="list-style-type: none"> <li>Verify AI-generated text for accuracy, apply proper disclosure</li> </ul> |                |

| Lecture | Topics                                                                                                                                                                                                                                                                                                                                                                                               | Book reference |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 7       | <b>Exam Simulation</b> <ul style="list-style-type: none"> <li>General review of the course: AI research workflow and Word formatting</li> <li>Exam briefing: format, assessment criteria, common mistakes</li> <li>Timed exam simulation mirroring the final test structure</li> <li>Self-grading with rubric and identification of weak areas</li> <li>Q&amp;A session</li> </ul> <b>Final Test</b> |                |

## Software used

Microsoft Word 2019/365 (available through Bocconi's Microsoft 365 license).

AI tools (all free, accessed via web browser):

- Google NotebookLM – multi-document analysis and synthesis
- Elicit – AI-powered literature search
- Consensus – evidence-based research Q&A
- Semantic Scholar – academic paper discovery
- ChatGPT / Google Gemini – writing assistance and outlining
- Perplexity AI – fact-checking and contextual research
- GPTZero – AI content detection

## Suggested bibliography

- Bocconi University, Thesis Writing Guidelines for MSc Programs (current edition)
- UNESCO, Guidance for Generative AI in Education and Research, 2023
- Mollick E., Co-Intelligence: Living and Working with AI, Portfolio, 2024
- Additional materials provided by the lecturer during the course.

## Available seats

Participation in this activity is limited to **110 students** and is open only to students enrolled in **Master's degree programs**.

No further registrations will be accepted once the maximum number of participants has been reached or the registration period has ended.