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**Title of the course**

- **250025 Artificial Intelligence Techniques for PhD Research**

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**Organizing center leading the course**

Deusto International Research School (DIRS)

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**Training category**

AF7. Methodology and research techniques

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**Professor/Coordinator of the training course**

Coordination: Borja Sanz

Professors: Borja Sanz Urquijo and Iker Pastor Lopez

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**Priority group**

PhD students

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**Competences**

- SPECIFIC COMPETENCE SC1: Utilize AI-driven tools to conduct comprehensive literature reviews and organize research materials effectively.
- SPECIFIC COMPETENCE SC2: Critically read and analyze academic papers using AI tools.
- SPECIFIC COMPETENCE SC3: Draft and edit research documents with AI assistance.
- SPECIFIC COMPETENCE SC4: Manage citations and enhance academic writing using advanced AI tools.

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**Pre-requisites / prior knowledge**

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**Contents****Unit 1. Introduction to AI in Research** (1 hour)

Overview of AI in academic research. Benefits and challenges of using AI tools in research. Introduction to the course structure and objectives.

**Unit 2. AI-Powered Literature Review** (2 hours)

Conducting comprehensive literature reviews using AI tools. Organizing and managing research materials. Keeping up-to-date with the latest research. Practical exercises on utilizing AI for literature review.

**Unit 3. Critical Reading and Analysis with AI** (2 hours)

Techniques for summarizing academic papers using AI. Extracting and interpreting key findings from research articles. Evaluating the relevance and impact of academic papers. Practical exercises on critical reading with AI assistance.

#### **Unit 4. Drafting and Editing Research Documents with AI (2 hours)**

Generating initial drafts using AI tools. Structuring and outlining research documents. Refining and expanding content. Improving clarity and coherence in academic writing using AI. Ensuring adherence to academic standards and citation practices. Practical exercises on drafting and editing with AI support.

#### **Unit 5. Advanced Citation Management and Smart Citations (2 hours)**

Managing and organizing citations effectively with AI tools. Implementing smart citation strategies. Ensuring accuracy and relevance in referencing. Practical exercises on citation management.

#### **Unit 6. Enhancing Academic Writing with AI Prompts (1 hour)**

Using AI to generate effective academic writing prompts. Enhancing creativity and quality in academic texts. Practical exercises on using AI prompts for academic writing.

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#### **Level of the course**

Beginners

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#### **Methodology**

Next, the methods and techniques used during the course are summarized and the research strategy is defined:

- *Lecture.* The lecturer presents the contents of the course in a detailed and organized manner, within the lecture room. The contents, available during the lectures, will be made available in advance to the students (as slides) and classified by units.
- *Individual work.* The students will carry out a set of guided practical activities associated to the course topics.

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#### **Language of instruction**

English

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#### **Mode of instruction**

In person and online

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#### **Number of places**

20

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**Assessment**

Be able to apply the techniques demonstrated in the module to a given exercise proposed by each lecturer at the end of their module.

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**Number of hours**

10 hours

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**Bilbao Campus**

- Dates      Monday, April 13, 2026 (15:00-17:30)  
                 Tuesday, April 14, 2026 (15:00-17:30)  
                 Wednesday, April 15, 2026 (15:00-17:30)  
                 Thursday, April 16, 2026 (15:00-17:30)
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