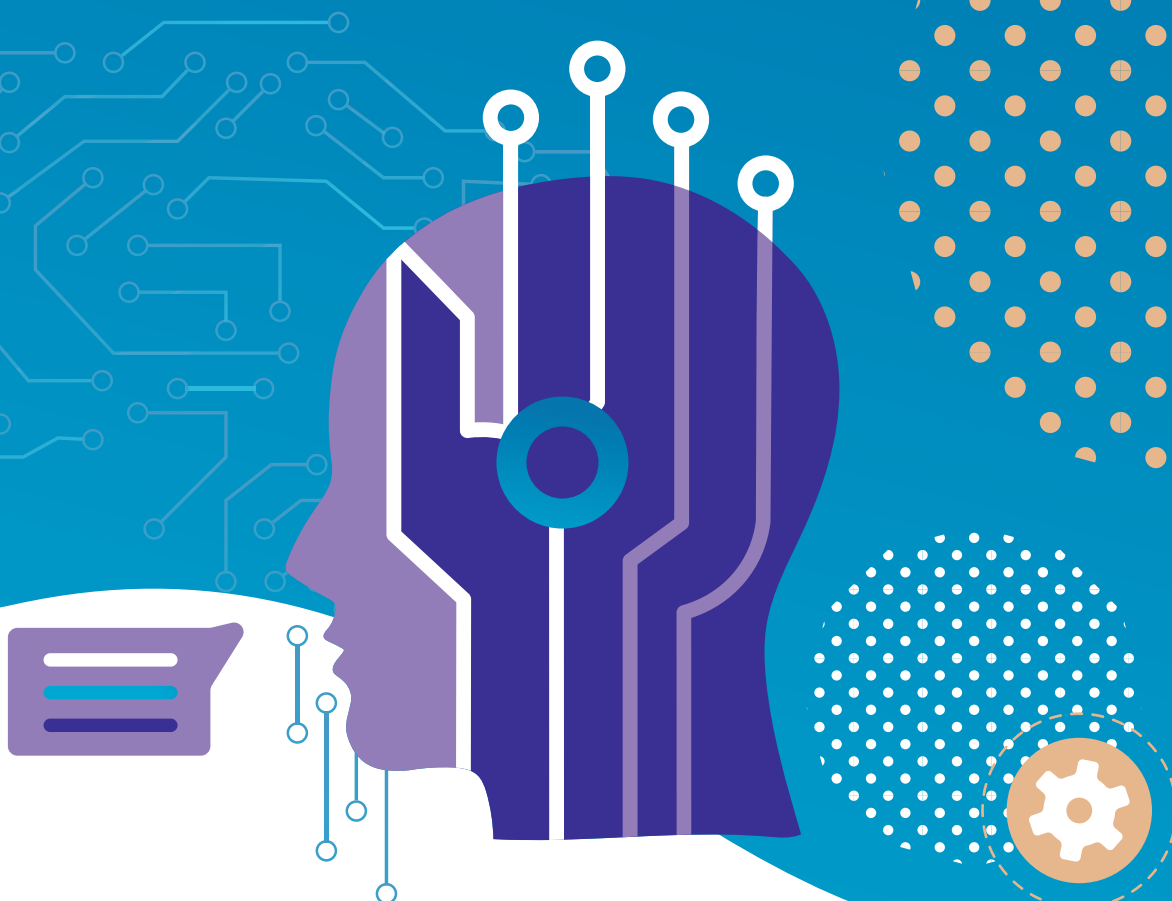




CURRICULUM for Ethical Use of **AI** in Academia



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CURRICULUM FOR THE SEMINAR SERIES

INTRODUCTION

The integration of Artificial Intelligence (AI) in higher education is transforming teaching, learning and research practices. While offering new opportunities, AI adoption also raises complex ethical challenges: academic integrity, bias, plagiarism, transparency and fairness. Work Package 3 (WP3) of EmpowerAI addresses these challenges by developing and delivering a Seminar Series for Academic Staff. This series equips educators with the knowledge and tools to apply the Ethical Guidelines for AI use in Academia (developed in WP2) in their professional contexts. This deliverable (D3.1) presents the Curriculum for the Seminar Series, structured in three modules. It is intentionally concise and capacity-sensitive, ensuring accessibility across diverse universities while fostering deep ethical reflection.

This curriculum also contributes to the broader European agenda on digital transformation in higher education, supporting educators in understanding how to integrate AI tools responsibly into academic workflows. By embedding ethical awareness in everyday academic practices, EmpowerAI ensures that universities not only adopt technological innovations but also uphold the principles of trust, equity, and accountability.

1. RATIONALE AND PEDAGOGICAL APPROACH

The curriculum aligns with EmpowerAI's objective to foster a culture of responsible AI adoption. Its emphasis is not on technical training in AI systems, but on cultivating ethical awareness among academic staff, enabling them to engage in critical reflection through real-life case studies (cases) while also encouraging collective dialogue and peer learning. The pedagogical model draws on experiential and reflective learning theories (Kolb, 1984; Schön, 1987), positioning participants as co-learners who construct ethical understanding through dialogue and application. The seminar encourages critical incident analysis and reflective journaling as tools for internalizing ethical reasoning, thus bridging theoretical principles with authentic professional contexts.

The design is guided by several principles: it prioritizes simplicity and accessibility so that staff from varied academic backgrounds can participate effectively; it maintains a practical focus by using case studies that are directly connected to core academic tasks such as teaching, grading and research; it promotes reflective learning by asking participants to analyze dilemmas, identify risks and propose context-appropriate solutions; and it fosters collaborative dialogue by providing space for the exchange of experiences and perspectives, which in turn supports the development of a shared understanding across institutions.

2. SEMINAR'S STRUCTURE

The three-module structure balances knowledge input, active reflection and shared discussion:

- Module 1 provides essential knowledge (intro to EmpowerAI and guidelines).

- Module 2 engages staff in independent ethical reasoning.
- Module 3 promotes peer learning and consolidates good practices.

The curriculum has been deliberately designed to avoid overburdening staff or requiring specialized technical knowledge. Module 1 is three hours ensuring that all staff, regardless of prior exposure to AI, can quickly understand the Ethical Guidelines and are also informed. Module 2 does not require mastery of AI tools or platforms; instead, it uses generalized case studies that staff adapt to their own academic context. It ensures that partners with fewer resources, less technical expertise, or diverse institutional policies can still participate fully and meaningfully. Module 3 requires only a short 5-minute presentation, allowing broad participation without demanding extensive preparation. The design therefore guarantees accessibility, inclusivity and feasibility across all partner universities, irrespective of their size, resources, or digital readiness.

3. SUMMARY OF THE PROPOSED CURRICULUM

Module 1 (3 hours): Intro to Guidelines for Ethical Use of AI in Academia and how to apply them (short: 2 hours). Give learners (academic staff) **assignment topics with educational case studies** (1 hour) – each learner/team of learners can select one of the case-studies from a pool of proposals.

Module 2 (self-study – 2 hours): Develop/design solutions to the **assignment topics with case studies** where they must reflect on how to ethically use AI, identify risks/unethical practices, and propose mitigation.

Module 3 (3 hours): Learners present their solutions in short presentations (~5 minutes).

A prerequisite of the course will be reading the guidelines (2 hours prior to seminars to read the ethical guidelines' documents).

4. MODULES DESCRIPTION

Module 1 – Introduction to Guidelines and Ethical AI in Academia

Duration: 3 hours

Format: seminar (in-person or online)

Objectives:

- Familiarize staff with the Ethical Guidelines for AI use.
- Explain how to apply them in teaching, research and institutional policy.
- Build a common vocabulary across participants.
- Provide learners (academic staff) assignment topics with educational case studies, to apply (in the next module) the Ethical Guidelines

Content:

1. Contextual framing – AI in higher education: opportunities and risks.

2. Core ethical principles – fairness, transparency, integrity, accountability, bias mitigation.
3. Application focus – practical “dos and don’ts” for classroom and research contexts.
4. Institutional dimension – aligning teaching practices with university policies.
5. Give learners (academic staff) assignment topics with educational case studies, plus related material.

Module 1 establishes a baseline of shared knowledge. It aims at ensuring all staff start from the same ethical foundation. It builds the bridge between WP2 (Ethical Guidelines) and WP3 (seminar application). Module 1 is directly connected to WP2. WP2 (“Ethical Guidelines for AI use in Academia”) produces the guidelines document (principles, risks, recommended practices). Module 1 of WP3 is essentially the translation of WP2’s output into teaching/training: it introduces participants to those guidelines, explains them in plain terms and shows how they can be applied in practice. So: WP2 = *What are the ethical rules and principles?* / WP3/Module 1 = *How do we teach staff to understand and apply them?* In this module, a set of assignment topics with educational case studies will be provided and described.

Module 2 – Case studies – Based Assignments (self-study)

Format: Independent or small-group reflection (time-flexible over several days, between Modules 1 & 3).

Duration: 2 hours

Objectives:

- Engage staff in active ethical reasoning.
- Enable them to translate guidelines into practice through problem-solving.
- Encourage self-reflection on risks and dilemmas in their own teaching/research.

Methodology:

Participants have received generalized ethical case studies and now are tasked with:

- [1] Identifying ethical issues.
- [2] Analyzing risks and non-ethical practices.
- [3] Proposing mitigation strategies aligned with the Guidelines.
- [4] Preparing a 5-minute presentation (Module 3).

The case method is chosen for its adaptability: staff from different disciplines can approach the same case studies differently, reflecting institutional and disciplinary diversity. This also avoids the need for training in AI tools, focusing instead on ethical reasoning capacity.

Module 3 – Presentations and Peer Reflection

Format: Seminar session (synchronous – presentations + discussion).

Duration: 3 hours

Objectives:

- Share and compare ethical solutions across participants.
- Encourage peer learning and cross-disciplinary dialogue.

- Consolidate understanding of how to apply the Guidelines.

Activities:

- Participant presentations (5 minutes each): a) Case study description, b) Risks and ethical issues identified, c) Proposed solution.
- Peer Q&A and reflections after each presentation.
- Trainer wrap-up by highlighting recurring themes, summarizing strong mitigation strategies and provide final recommendations for practice.

This module transforms individual reflection into collective learning. The act of presenting fosters confidence, while peer feedback deepens understanding. Trainers ensure alignment with the Guidelines, reinforcing institutional capacity for ethical AI use.

5. LEARNING OUTCOMES

By the end of the seminar series, academic staff will:

- Interpret the Ethical Guidelines and explain their relevance.
- Analyze ethical risks in AI-related academic case studies (attached to this document).
- Design mitigation strategies that align with the Guidelines.
- Propose and justify ethical solutions in presentations.
- Contribute to a culture of responsible AI adoption through peer learning.

These learning outcomes align with the DigCompEdu framework (European Commission, 2017), particularly in the areas of “Digital Citizenship” and “Empowering Learners.” The curriculum thus supports educators’ professional competence development not only in ethics but also in digital pedagogy and critical AI literacy.

6. EVALUATION

Evaluation will be based on pre/post surveys, participant satisfaction measures (clarity, useful of seminar) and the number and quality of presentations delivered, serving as indicators of engagement and learning outcomes.

Each Participant should produce:

- A short case studies analysis (risks + solutions + a declaration text to be added to future assignments + criteria for evaluating and verifying a course project in the discipline).
- A 5-minute presentation.

EmpowerAI Seminar Series functions as both a professional development tool and an institutional capacity-building instrument. By combining ethical reflection, peer collaboration, and actionable strategies, it ensures that academic communities are prepared to navigate the evolving ethical landscape of AI-enhanced education responsibly.

CASE-STUDIES POOL

EXAMPLE CASE 1

CASE: THE INVISIBLE “ASSISTANT” IN THE LABORATORY (ADDRESSING PEDAGOGICAL AND ETHICAL ISSUES)

Brief Summary (Scenario)

Assoc. Prof. VS teaches the scientific discipline “X” in a bachelor’s program. For the practical module, students must present an individual project – data analysis, a short report (protocol) with results, interpretation of the data, and conclusions. Student ST submits a report with a very well-written text, correct graphs, and clean, functional code. When Assoc. Prof. VS reviews the project, some functions work, but others give inexplicable results – and the writing style in the report obviously looks “lifted” from public popular science articles. At the project defense during the seminar, ST struggles to explain key decisions in the analysis but confidently answers general questions.

After checking with an anti-plagiarism system, it is found that a large part of the text and code resembles AI-generated responses, and some figures may have been created using generative tools. Ivan claims that he used an “online assistant” for ideas and part of the code but that the results are his and that he personally interpreted the data. The course has no clearly formulated policy on the use of AI. Assoc. Prof. VS wonders if this is fraud. How should the student’s contribution be assessed? What consequences and what teaching measures are adequate?

Key Points (Points of support)

- [1] Requirements/expectations in the assignment – individual work, requirement to present code and interpretation.
- [2] Lack of a clear course policy on the use of AI.
- [3] Presence of parts of the project (text, code, graphics) that strongly resemble generative system output.
- [4] The student admits to using an “online assistant” but claims to understand and interpret the results himself.
- [5] Practical difficulty during the oral exam – limited explanations of the methodology.
- [6] Possible academic consequences for plagiarism/misconduct according to university policies (though these policies may be ambiguous regarding AI).
- [7] Risks to scientific validity – errors in automatically generated code/interpretations may lead to incorrect results.
- [8] Pedagogical goals of the module: learning methodology, critical thinking, ability to interpret analyses – not only producing “working” code.

Reflect on a specific scientific discipline you teach, supplementing the suggested actions.

I. Scientific Discipline:

II. Specifics of the Scientific Discipline:

III. Possible Actions for Assoc. Prof. VS (Practical Steps)

1. Short-Term (Immediate)

1.1. Conduct an additional oral exam/demonstration, e.g., ask ST to explain and perform key parts of the analysis “live.”

1.2. Require a declaration from the student on the tools used (what/when/why it was used).

Write other possible actions (no fewer than 3) depending on the specifics of the discipline you teach

1.3.

1.4.

1.5.

2. Medium-Term (After Decision on the Case)

2.1. If a violation is established

2.2. If the use is permissible but incorrectly declared

2.3. Discuss the case publicly in the course as a learning opportunity (anonymized)

3. Long-Term (Prevention and Policy)

3.1. Introduce a clear AI use policy into the program (sample rules – declaration in each project; permitted/prohibited uses).

3.2. Change the evaluation format: more oral/live demonstrations, staged submissions, peer review, comprehension tests.

3.3. Training sessions on ethical and technical use of AI tools (how to verify generated code; how to cite AI).

3.4. Create resources for safe use of the tools (e.g., instructions for anonymizing data before uploading to the cloud).

3.5. Collaborate with the faculty/university for a common policy and exchange of best practices.

Suggest a declaration text to be added to future assignments.

“I declare that

Develop evaluation and verification criteria for a course project in the discipline you teach, considering adequate (according to the discipline specifics) use of AI.

Criterion	Percentage of the Grade	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 2

CASE STUDY: “AUTOMATIC PEER REVIEW IN THE “Y” SEMINAR (THE CASE CONCERNS FALSIFICATION OF SOURCES, BUT THE IDEAS ARE ORIGINAL, NOT USED “READY-MADE CONTENT”)

Summary (Scenario)

Prof. DN teaches the scientific discipline "Y" in the Bachelor's program in Philology. For a final assignment, students must write a critical essay on a scientific problem, applying a specific theoretical perspective (point of view). Student EL delivers an exceptionally smooth text with rich quotations, impressive style, and flawless structure. However, upon checking, Professor DN notices that some quotations do not correspond exactly to the original editions, and others appear to be entirely fabricated.

When asked in class about the origins of some quotes, EL admits that she used a generative AI tool that “helped” shape the text and suggested interpretations and quotes. She claims that the ideas are hers, but that the “online assistant” provided the structure and literary sources. There is no explicit rule in the course about whether students can use such tools. The problem is that the text is good, but its scientific value is undermined by fake sources.

Key Points (Points of support)

- [1] Assignment requirements – independent critical essay with accurate quotes and arguments.
- [2] Lack of clear policy on the use of AI for writing / editing.
- [3] The style and structure of the essay are excellent, but there are incorrect or non-existent quotes.
- [4] The student acknowledges the use of AI but defines it as an “assistant” in style and wording.
- [5] The main goal of the course is critical thinking and working with authentic sources.
- [6] Potential risk to scientific integrity – presentation of false citations and sources.
- [7] Difficulty in evaluation – the text is formally impressive, but invalid as an academic work.
- [8] Broader risk – introduction of fictional elements (“hallucinations”) by generative AI.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

III. Possible actions for Prof. DN (practical steps)

1. Short-term (immediate)

- 1.1. Require the student to present correct sources and revise the essay.
- 1.2. Additional oral presentation to see her real understanding.
- 1.3. Notify the case in the academic council for consultation.

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach

1.4.

1.5.

1.6.

2. Medium-term (after decision on the case)

2.1. If a serious violation is found

2.2. If the use is permissible but incorrectly declared

2.3. If the problem is more of an “unclear use”

2.4. Discuss the case publicly in the course as a learning opportunity (anonymized)

3. Long-term (prevention and policy)

3.1. Introduce a clear policy on AI in written works.

3.2. Strengthen the emphasis on working with primary sources (checking citations, bibliographies).

3.3. Add exercises for critical reading of AI-texts (identifying hallucinations).

Suggest a declaration text to be added to future assignments.

“I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 3

CASE STUDY: “THE BRIDGE DESIGNED BY THE INVISIBLE ENGINEER” (USING AI IS NOT JUST A MATTER OF ACADEMIC HONESTY, BUT ALSO OF REAL- WORLD SAFETY)

Summary (Scenario)

Eng. CS is a university lecturer in the scientific discipline “Building Statics and Structural Design”. For the semester project, students must calculate the loads and design a small pedestrian bridge with clearly defined parameters – length, materials, maximum load.

The SP student presents a project with extremely detailed drawings, 3D visualizations and calculations in tabular form. Everything seems precisely arranged, but when the teacher checks some of the calculations, he finds errors – incorrect safety factors and non-existent standards cited as “EN standards” were used.

During the oral presentation, the SP said he used a generative AI tool to automatically create calculations and CAD drawings because it “saved time”. He claimed he checked the results but did not notice the errors. There is no explicit policy in the course on using such tools.

Key Points (Points of support)

- [1]The project requires real engineering calculations, in line with standards.
- [2]AI was used to generate calculations and drawings.
- [3]As a result - errors are present that could be critical in a real construction.
- [4]The student had good intentions (saving time), but critical checking is missing.
- [5]There is no clarity on whether the use of AI is allowed or not.
- [6]Main goal of the course – mastering engineering thinking and safety as a key priority.
- [7]Risks to academic integrity, but also to public safety, if such mistakes are transferred to practice.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

III. Possible actions for the CS engineer (practical steps)

1. Short-term (immediate)

- 1.1. Require the SP to correct the project with “manually” checked calculations.
- 1.2. Conduct an oral exam on key formulas and standards.
- 1.3. Report the case to the department and discuss an appropriate sanction or recommendation.

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach.

- 1.4.
- 1.5.
- 1.6.

2. Medium-term (after a decision on the case)

- 2.1. Development of control tasks that must be solved without AI.
- 2.2. Introduction of written explanations for each computational choice.

3. Long-term (prevention and policy)

- 3.1. Formulate a university policy on AI in engineering disciplines.
- 3.2. Train students on how to use AI responsibly – as an assistant, but with critical scrutiny.
- 3.3. Build a culture of “double-checking” – AI can provide initial ideas, but the engineer always bears the ultimate responsibility.
- 3.4. Changing assessment criteria to focus on understanding, not just the result.

Suggest a declaration text to be added to future assignments.

“I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 4

CASE STUDY: "THE EXPERIMENT THAT NEVER WAS" (AI'S CREATION OF "SCIENTIFIC REALITIES" THAT NEVER EXISTED)

Summary (Scenario)

Assoc. Prof. AT teaches the scientific discipline "Experimental X" in the master's program. The students' task is to plan a small experiment, collect real data (even from a small sample), and present a report with an analysis of the results.

Student DG submits a report with compelling statistical results, a well-structured discussion, and precisely formatted graphs. Upon review, Assoc. Prof. AT notices that the data looks perfect – with no missing values and perfectly balanced groups. When asked a follow-up question during the project presentation, DG admitted that it did not actually conduct the experiment, but rather „simulated the data“ using generative AI because it was difficult to find enough participants. He claims that the analysis and discussion are his own but admits that the data are not real. There is no clear rule in the course about whether simulations can be used as a substitute for experiment.

Key Points (Points of support)

- [1] Assignment – real experiment and empirical data collection.
- [2] Student uses AI to create "perfect" artificial data.
- [3] The report appears scientifically sound but violates the condition of reality.
- [4] Main goal of the course: mastering the skill of conducting a real experiment and working with imperfect data.
- [5] Possible risk – presenting simulated results as "scientific truth".
- [6] Lack of a prior policy regarding simulated data.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

II. Possible actions for Assoc. Prof. AT (practical steps)

1. Short-term (immediate)

- 1.1. To request from the DG a new execution of the assignment with real data.
- 1.2. To discuss with the department whether the case constitutes fraud or a "misunderstanding of the terms".
- 1.3. To use the case as an example of the dangers of "perfect data".

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach.

- 1.4.
- 1.5.
- 1.6.

2. Medium-term (after a decision on the case)

- 2.1. Introduce a rule for mandatory presentation of raw data and a description of the method of collection.
- 2.2. Include in the evaluation a check of the process, not only of the result.

3. Long-term (prevention and policy)

- 3.1. Integrate a module on critical use of simulated data into the course (when it is useful, when it is misleading).
- 3.2. Develop a common policy with colleagues on the use of AI in empirical disciplines.

Suggest a declaration text to be added to future assignments.

"I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 5

CASE STUDY: A STUDENT'S ESSAY SHOWS SIGNS OF AI GENERATION. THE INSTRUCTOR SUSPECTS MISUSE BUT MUST BALANCE FAIRNESS, EVIDENCE AND ACADEMIC INTEGRITY.

Summary (Scenario)

It's the middle of the semester, and you've just finished reading a batch of essays. One submission stands out. The student's writing is suddenly much more polished than in previous assignments—perfect grammar, complex vocabulary, and a style that doesn't sound like their own. You wonder whether the student has discovered ChatGPT or another AI writing tool. But you don't have solid proof, only suspicion.

You now face a dilemma: if you accuse the student without evidence, you risk being unfair and damaging trust. If you ignore the signs, you may be allowing academic dishonesty to go unchallenged. At the same time, other students may feel disadvantaged if some of their peers are using AI in ways that cross the line. You realize that this is not just about one essay, but about how to maintain integrity in a world where AI writing tools are widely available.

Key Points (Points of support)

- [1] Detecting AI use is uncertain and error prone.
- [2] Need for clear institutional policies.
- [3] Balancing suspicion vs. evidence.
- [4] Supporting academic integrity while being fair to students.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

III. Possible actions for the CS engineer (practical steps)

1. Short-term (immediate)

- 1.1 How would you start a conversation with the student?
- 1.2 What warning signs would you look for in AI-generated work?
- 1.3 Should students disclose if they used AI at any stage?

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach.

- 1.4
- 1.5
- 1.6

2. Medium-term (after a decision on the case)

- 2.1 How could you teach students in your field to use AI as a support tool rather than a shortcut?
- 2.2 What role should AI-detection software play in your grading process?

2.3 How can you balance academic integrity with giving students the benefit of doubt?

3. Long-term (prevention and policy)

3.1 If your department created AI-use guidelines, what would be the 3 most important rules?

3.2 How would you redesign assessment formats (oral exams, in-class tasks, project work) to reduce AI misuse?

3.3 How can your discipline prepare students for a world where AI writing is widespread, but integrity still matters?

Suggest a declaration text to be added to future assignments.

I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 6

CASE STUDY: AN AI GRADING TOOL IS INTRODUCED TO MANAGE LARGE CLASSES, BUT RESULTS SHOW NON-NATIVE SPEAKERS CONSISTENTLY RECEIVING LOWER SCORES.

Summary (Scenario)

To handle the workload of grading in a large class, your university introduces an AI grading platform. At first, it feels like a relief—assignments are scored quickly, feedback is generated instantly, and you gain more time for research and teaching. But soon, troubling patterns emerge. Non-native speakers, despite showing good understanding and effort, consistently receive lower scores. Some students begin to complain that the system is unfair.

You start to wonder: Is the AI truly evaluating content, or is it biased against writing style, grammar, or other surface features? As the instructor, you remain responsible for grades, yet you're now relying on a system you don't fully control or understand. The efficiency is undeniable, but can you defend a grading process that seems to penalize certain groups of students?

Key Points (Points of support):

- [1] Risk of algorithmic bias and discrimination.
- [2] Ethical duty to ensure grading fairness.
- [3] Transparency of AI grading criteria.
- [4] Instructor accountability vs. AI automation.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

III. Possible actions for the CS engineer (practical steps)

1. Short-term (immediate)

- 1.1. Would you inform your students that AI is grading part of their work?
- 1.2. What's one risk of outsourcing grading to AI in your subject?
- 1.3. Do you think grading bias could happen in your discipline too?

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach.

- 1.4.
- 1.5.
- 1.6.

2. Medium-term (after a decision on the case)

- 2.1. How can you check whether an AI grading tool is fair and reliable?
- 2.2. How would you respond to students who challenge their AI-generated grades?
- 2.3. Could peer review or double-marking help balance AI use in grading?

3. Long-term (prevention and policy)

- 3.1. Should grading responsibility always remain with humans? Defend your view.
- 3.2. What ethical principles should guide AI grading in higher education?
- 3.3. How could your department create a transparent grading policy that uses AI but safeguards fairness?

Suggest a declaration text to be added to future assignments.

I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 7

CASE STUDY: AI PLATFORM TO CREATE PERSONALIZED LEARNING PATHS FOR STUDENTS IN AN INTRODUCTORY COURSE

Summary (Scenario)

You decide to try an AI-based platform that builds personalized learning paths for your students. The system analyzes test scores, past assignments, and even student survey data to recommend specific readings, videos, and exercises. Some students immediately benefit—they say it feels like having a tutor guiding them step by step.

But not everyone is happy! A few students complain that the AI “pigeonholes” them, only recommending materials in areas it thinks they should focus on. Others say they miss out on exploring topics outside their predicted strengths. Still others ask what data is being collected, where it’s stored, and whether their privacy is at risk. You realize that while personalization may help some students learn more efficiently, it might also restrict curiosity and raise ethical questions about data use.

Key Points (Points of support)

- [1]Evolving definitions of plagiarism and authorship.
- [2]Opportunity: AI as a learning assistant.
- [3]Challenge: assessing original student contribution.
- [4]Need for discipline-specific AI policies.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

III. Possible actions for the CS engineer (practical steps)

1. Short-term (immediate)

- 1.1. Would you trust AI to recommend readings for your students?
- 1.2. How would you explain to students where the AI’s recommendations come from?
- 1.3. Should students be allowed to “opt out” of AI personalization?

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach.

- 1.4.
- 1.5.
- 1.6.

2. Medium-term (after a decision on the case)

- 2.1. How can you prevent students from being trapped in narrow learning “boxes”?
- 2.2. What risks do you see in collecting and storing student learning data in your field?
- 2.3. How would you balance efficiency (AI personalization) with creativity (student choice)?

3. Long-term (prevention and policy)

- 3.1. What rules about data privacy and consent should apply when AI personalizes education?
- 3.2. How would you design a system where students benefit from personalization but still explore freely?
- 3.3. In your discipline, what knowledge or skills risk being lost if AI overly personalizes learning?
- 3.4. Changing assessment criteria to focus on understanding, not just the result.

Suggest a declaration text to be added to future assignments.

I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 8

CASE STUDY: STUDENTS ARE INCREASINGLY USING TOOLS LIKE CHATGPT TO DRAFT ESSAYS, CODE, OR SOLVE ASSIGNMENTS.

Summary (script)

In recent months, more students have begun openly using AI tools like ChatGPT to write essays, solve math problems, debug code, or brainstorm ideas. Some even say they wouldn't have passed their last assignment without it. Among your colleagues, opinions are divided: one group insists this is a form of cheating, while others argue that AI is a tool—just like a calculator or a spell-checker—that students must learn to use responsibly.

You find yourself caught in the middle. On one hand, you don't want students to hand in work that's essentially done by a machine. On the other, you recognize that AI tools will likely play a major role in their future professional lives. The challenge is figuring out where to draw the line: when is AI support legitimate learning, and when does it undermine the very purpose of education?

Key Points (Points of support)

- [1]Evolving definitions of plagiarism and authorship.
- [2]Opportunity: AI as a learning assistant.
- [3]Challenge: assessing original student contribution.
- [4]Need for discipline-specific AI policies.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

III. Possible actions for the CS engineer (practical steps)

1. Short-term (immediate)

- 1.1. Do you allow students to use AI in your classes today?
- 1.2. Where do you personally draw the line between fair use and cheating?
- 1.3. Should disclosure of AI use be mandatory?

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach.

- 1.4.
- 1.5.
- 1.6.

2. Medium-term (after a decision on the case)

- 2.1. How might AI help students practice core skills in your subject instead of replacing them?
- 2.2. How would you design assignments that remain meaningful even with AI access?

2.3. Could you teach students to critique or improve AI-generated work as part of assessment?

3. Long-term (prevention and policy)

3.1. What long-term approach should your university adopt toward student AI use?

3.2. How should learning outcomes be redefined in your discipline when AI is always available?

3.3. If you had to prepare students for a future workplace where AI is routine, how would you adapt your teaching?

3.4. Changing assessment criteria to focus on understanding, not just the result

Suggest a declaration text to be added to future assignments.

I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 9

CASE STUDY: AI TO GENERATE REAL-TIME CAPTIONS AND LECTURE SUMMARIES FOR STUDENTS WITH HEARING DIFFICULTIES AND FOR INTERNATIONAL STUDENTS.

Summary (Scenario)

During your lectures, you introduce a new AI system that generates real-time captions and summaries. For students with hearing difficulties and for international students struggling with the language, it feels like a breakthrough. They can follow along more easily and review summaries afterwards to reinforce learning.

But there are challenges. The AI sometimes mishears technical terms, producing confusing or even misleading captions. Summaries occasionally oversimplify complex theories, leaving out nuances that are essential in your field. You appreciate how the tool supports accessibility, but you wonder whether it is safe for students to rely on it without human oversight. At what point does “helpful support” become “a risk of misunderstanding”?

Key Points (Points of support)

- [1] AI can promote accessibility and inclusion.
- [2] Potential errors/misinterpretations in captions or summaries.
- [3] Ethical obligation to provide equal learning opportunities.
- [4] Importance of reviewing AI outputs for accuracy.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

III. Possible actions for the CS engineer (practical steps)

1. Short-term (immediate)

- 1.1. Would you tell students to rely on AI captions for important content?
- 1.2. Should AI accessibility tools be optional or standard in your classes?
- 1.3. What's one risk of depending on AI for accessibility in your subject?

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach.

- 1.4.
- 1.5.
- 1.6.

2. Medium-term (after a decision on the case)

- 2.1. How would you check the accuracy of AI captions in your lectures?
- 2.2. How could you ensure accessibility tools benefit everyone, not just a few students?
- 2.3. How would you handle complaints if captions or summaries misrepresented key concepts?

3. Long-term (prevention and policy)

- 3.1. What obligations do professors have to verify the quality of AI-based accessibility aids?
- 3.2. How could your institution build policies that combine AI accessibility with inclusivity and accuracy?
- 3.3. In your discipline, what unique challenges exist for making content accessible with AI?
- 3.4. Changing assessment criteria to focus on understanding, not just the result

Suggest a declaration text to be added to future assignments.

I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 10

CASE STUDY: A UNIVERSITY DEPLOYS A CHATBOT TO SUPPORT STUDENT ADVISING.

Summary (Scenario)

Your university recently introduced an AI-powered chatbot to help with student advising. The chatbot is available 24/7 and can answer common questions about course registration, degree requirements, deadlines, and even career advice. At first, it seems like a success: advising staff have more time for complex cases, and students appreciate quick responses instead of waiting for office hours.

However, after a few weeks, issues begin to surface. Some students report receiving inaccurate or outdated information about graduation requirements. Others worry that the chatbot stores personal conversations and may share sensitive data. A few even say they feel less connected to their professors and advisors, since most of their questions are now routed through the AI system. As a faculty member, you start to wonder: Is the chatbot really helping students learn to navigate university life, or is it replacing valuable human guidance with a tool that has limits and risks?

Key Points (Points of support)

- [1] Chatbots can reduce staff workload and improve accessibility for students.
- [2] Risk of inaccurate or outdated guidance affecting student decisions.
- [3] Concerns about data privacy and storage of sensitive student information.
- [4] Overreliance on AI may reduce meaningful student–faculty interactions.
- [5] Clear accountability and policies are needed for chatbot use in advising.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

III. Possible actions for the CS engineer (practical steps)

1. Short-term (immediate)

- 1.1. Would you trust a chatbot to give students advice in your field?
- 1.2. Should students be required to know when they are talking to an AI versus a human?
- 1.3. What's one type of question you would never let a chatbot answer in your discipline?

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach.

- 1.4.
- 1.5.
- 1.6.

2. Medium-term (after a decision on the case)

- 2.1 How can you ensure that chatbot advice remains accurate, reliable, and up to date in your subject area?
- 2.2 What are the risks of students relying on chatbots for personal or sensitive guidance?
- 2.3 How might the introduction of AI chatbots affect the relationship between students and professors in your department?

3. Long-term (prevention and policy)

- 3.1. If your university decided to expand chatbot use, what policies would you propose to protect privacy and prevent misinformation?
- 3.2. How would you integrate AI advising tools into your teaching practice while still maintaining human connection and mentorship?
- 3.3. In the long term, should chatbots be seen as assistants, replacements, or supplements to academic advising?
- Defend your position with examples from your discipline. Changing assessment criteria to focus on understanding, not just the result.

Suggest a declaration text to be added to future assignments.

I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 11

CASE STUDY: "THE INVISIBLE PROGRAMMER" (WHEN AI TURNS LEARNING PARADIGMS INTO COPY-PASTE HABITS)

Summary (script)

Eng. CM is a university lecturer in the discipline Programming Paradigms, where students must develop a final project that combines concepts from Functional, Object-Oriented, and Logic Programming.

Student AR submits a project that appears outstanding at first glance: elegant code, detailed documentation, well-organized examples, and explanatory comments. However, during review, the lecturer notices inconsistencies: variable names in different languages, coding styles typical of AI-generated content, and a total absence of beginner-level mistakes.

When questioned, the student admits having used ChatGPT to "generate most of the code and explanations", claiming to have only "adjusted and tested the results." Although the project runs perfectly, the student fails to explain core concepts such as closures, or the distinction between immutability and state.

The course regulation does not explicitly forbid or regulate the use of AI, though the lecturer had previously emphasized the importance of conceptual mastery before automation.

Key Points (Points of support)

- [1]The project requires conceptual mastery of programming paradigms.
- [2]The student used AI to generate code and explanations.
- [3]The code works but lacks underlying understanding.
- [4]There is no transparency about the level of AI contribution.
- [5]The course lacks explicit policy on AI use.
- [6]The main goal of the course is to develop computational and paradigmatic thinking, not just problem-solving.
- [7]Risks include loss of meaningful learning and academic integrity.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

III. Possible actions for the CM engineer (practical steps)

1. Short-term (immediate)

- 1.1. Require the student to orally explain the main parts of the code.
- 1.2. Ask for partial re-implementation of code segments without using AI.
- 1.3. Report the case to the course coordinator for discussion.

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach.

- 1.4.
- 1.5.

1.6.

2. Medium-term (after a decision on the case)

2.1 How could future assessments be designed to ensure students truly understand the programming paradigms behind their code?

2.2 Should oral presentations include conceptual questions about the code logic and paradigm used?

2.3 What strategies could be used to distinguish between human-written and AI-generated code during evaluation?

2.4 How might grading rubrics be adapted to reward critical reasoning over technical polish?

2.5 Would implementing in-lab practical exams (without AI access) strengthen conceptual integrity?

3. Long-term (prevention and policy)

3.1 What institutional policy should define acceptable and unacceptable uses of AI in programming courses?

3.2 How can students be trained to use AI ethically and critically in software development?

3.3 What mechanisms can be introduced to ensure that students remain responsible for their own code?

3.4 Should assessment criteria evolve to include oral reasoning and conceptual explanation as key components?

3.5 How can AI be integrated into the curriculum as a learning partner rather than a substitute for understanding?

Suggest a declaration text to be added to future assignments.

I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 12

CASE STUDY: “THE PERFECT MATRIX THAT DIDN’T ADD UP” (WHEN AI SOLVES EQUATIONS, BUT NOT UNDERSTANDING)

Summary (Scenario)

Dr. CM teaches Linear Algebra to first-year engineering students. For their semester project, students must apply matrix operations, determinants, and vector spaces to analyze a real-world system, such as traffic flow, electrical circuits, or data transformation.

Student LM submits an excellent-looking report: detailed derivations, precise formatting, elegant 3D graphs, and matrix computations that seem flawless. However, when the teacher redoes some of the calculations, several results turn out to be incorrect, matrix multiplications inconsistent, determinant signs reversed, and some theorems cited as “well-known AI references” that do not exist.

When questioned, LM admits to using ChatGPT and WolframAlpha “to speed up the process,” but confesses not understanding why the AI results differ from manual computation. The report includes steps copied verbatim from the AI output, with no interpretation or reasoning.

The course policy does not yet define clear rules for the use of AI tools in mathematical reasoning or report generation.

Key Points (Points of support)

- [1]The project requires conceptual understanding of Linear Algebra operations.
- [2]AI tools were used to generate results and justifications.
- [3]The numerical outputs are inconsistent and contain conceptual errors.
- [4]The student failed to verify or interpret AI results.
- [5]There is no clear institutional policy on AI use in mathematics coursework.
- [6]The main course goal is to develop logical reasoning and abstraction, not automated computation.
- [7]Risk of false confidence in AI results and erosion of mathematical rigor.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

III. Possible actions for the CM teacher (practical steps)

1. Short-term (immediate)

- 1.1. Require the student to re-solve key problems manually, showing all steps.
- 1.2. Conduct a short oral test on vector spaces, determinants, and eigenvalues.
- 1.3. Compare AI-generated and manual results to identify differences.

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach

- 1.4.
- 1.5.
- 1.6.

2. Medium-term (after a decision on the case)

- 2.1 How can future assignments be designed to encourage reasoning and interpretation rather than simple computation?
- 2.2 Should part of the assessment be conducted without access to AI or computational tools to ensure conceptual understanding?
- 2.3 What kind of workshops or learning activities could help students critically verify AI-generated mathematical results?
- 2.4 How can evaluation rubrics be adapted to value conceptual explanation and analysis of errors?
- 2.5 Would integrating manual verification exercises improve students' awareness of mathematical accuracy?

3. Long-term (prevention and policy)

- 3.1 What institutional policy should define the boundaries of AI use in mathematical problem-solving?
- 3.2 How can AI literacy be integrated into mathematics education while keeping focus on validation rather than automation?
- 3.3 What strategies can be adopted to build "AI-verification habits" — promoting logical checking and mathematical rigor?
- 3.4 How might project design evolve to combine computational tools with manual reasoning and verification?
- 3.5 Should grading criteria be reoriented towards conceptual understanding instead of visual or computational performance?

Suggest a declaration text to be added to future assignments.

I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 13

CASE STUDY: “THE PERFECT PROCESS THAT BROKE THE RULES” (WHEN AI OPTIMIZES WORKFLOWS — BUT IGNORES ETHICS AND COMPLIANCE)

Summary (script)

Eng. MA teaches Business Process Management in the Information Systems Engineering program. Students are asked to design a BPMN (Business Process Model and Notation) diagram for a real organization, identifying activities, actors, decisions, and data flows that optimize business efficiency while respecting compliance and ethical standards. Student RT presents a highly professional BPMN model for an HR recruitment process. It includes automation, decision gateways, and AI-based screening steps. The model impresses everyone with its clarity and sophistication — even including RPA (Robotic Process Automation) tasks and predictive analytics.

However, during review, the lecturer discovers that:

- the AI screening activity automatically filters candidates based on inferred personal traits (e.g., gender, nationality, age).
- the “approval” subprocess uses a machine learning recommendation model trained on past hiring data — which reflects bias.
- and the data-handling subprocess violates GDPR principles by storing candidate information indefinitely.

When questioned, RT admits to using ChatGPT and another AI workflow generator to create the process, if the automation would “follow best practices by default.” He claims the goal was to make the process more efficient, not realizing the ethical and legal implications.

There is no explicit institutional rule regarding AI use in BPMN design or automated decision systems.

Key Points (Points of support)

- [1]The project required critical thinking about organizational ethics and compliance.
- [2]AI tools were used to automatically design the workflow and decision logic.
- [3]The generated process contained biased and non-compliant automation.
- [4]The student failed to verify or assess the ethical implications of automation.
- [5]There are no institutional guidelines for AI-assisted BPMN design.
- [6]The main goal of the course is to teach responsible process design, not mere automation.
- [7]Risks include embedding bias, violating data protection law, and eroding human accountability.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

III. Possible actions for the MA teacher (practical steps)

1. Short-term (immediate)

- 1.1. Require RT to redesign the process, explicitly identifying where human oversight and ethical validation are needed.
- 1.2. Conduct an oral discussion on AI bias, GDPR principles, and automation accountability.
- 1.3. Compare the AI-generated BPMN with a human-designed version to highlight differences.

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach

- 1.4.
- 1.5.
- 1.6.

2. Medium-term (after a decision on the case)

- 2.1. How can students be trained to critically evaluate AI-generated BPMN diagrams for bias, legality, and fairness?
- 2.2. Should every BPMN assignment include specific “Ethics Checkpoints” that require explicit reflection?
- 2.3. How can a mandatory “AI Transparency Statement” be implemented in process design courses?
- 2.4. Would organizing workshops on Ethical Automation help students understand real-world implications?
- 2.5. What teaching strategies can ensure that automation is always reviewed through an ethical and human-centered lens?

3. Long-term (prevention and policy)

- 3.1 What university-wide guidelines should regulate AI-assisted process modeling and workflow design?
- 3.2 How can ethical impact analysis be systematically integrated into BPMN coursework and assessment?
- 3.3 Should an interdisciplinary module on AI Governance become a core component of Process Engineering programs?
- 3.4 What approaches can promote a culture of Explainable BPM, ensuring interpretability and auditability of all automated steps?
- 3.5 How can we reinforce the principle that automation should augment, not replace, human decision-making?

Suggest a declaration text to be added to future assignments.

I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.

Originality Contribution	and		

EXAMPLE CASE 14

CASE STUDY: THE MISROUTED FREIGHT – WHEN AI IGNORES LOCAL CONSTRAINTS”

Summary (Scenario)

A logistics engineering student submits a semester project simulating freight routing across Europe using an AI-powered optimization tool. The results show impressive efficiency and cost savings. However, upon review, the lecturer discovers that the AI ignored key constraints: weight limits on regional roads, customs delays at non-Schengen borders, and local environmental regulations.

The student assumed the AI tool had integrated all relevant data, but it had not. The project, while technically polished, fails to meet real-world feasibility standards.

Key Points (Points of support)

- [1] AI-generated route optimization overlooked local transport constraints.
- [2] Student relied on default settings without verifying regulatory compliance.
- [3] Project risks real-world delays, fines, and environmental violations.
- [4] No course policy on verifying AI-generated logistics models.
- [5] Core learning goal: strategic thinking and regulatory awareness in transport planning.

Reflect on a specific scientific discipline in which you teach, completing the given actions in a short presentation.

I. Scientific discipline:

II. Specificity of the scientific discipline:

III. Possible actions for the teacher (practical steps)

1.Short-Term (Immediate)

- 1.1 How can teachers require students to manually recalculate routes with annotated constraints to deepen their understanding of real-world limitations?
- 1.2 What are effective methods for assessing student knowledge of EU transport regulations and cross-border logistics through oral exams or presentations?
- 1.3 How should departments review and monitor the appropriate use of AI tools in coursework to ensure responsible application?
- 1.4 What other immediate interventions can be implemented to reinforce critical thinking about AI outputs in your specific transportation discipline?
- 1.5 How can we integrate scenario-based challenges where students identify potential AI model failures and propose corrections?
- 1.6 What types of reflective journals or reports can students submit documenting their analysis of AI-generated results?
- 1.7 How can peer review sessions be organized to encourage collaborative critique of AI-based transport models?

Write other possible immediate actions (no less than 3) depending on the specifics of the discipline you teach

1.8.....

1.9.....

2. Medium-Term (After Decision on the Case)

- 2.1 How might control tasks requiring manual route planning be incorporated into coursework to balance AI reliance with foundational skills?
- 2.2 What strategies can be put in place to ensure students complete and submit detailed “compliance checklists” verifying their AI-generated models meet regulatory standards?
- 2.3 How can curriculum updates embed these control tasks and checklists while aligning them with learning objectives?
- 2.4 What ongoing professional development support do teachers need to effectively guide students in critically using AI in transport engineering?

These questions can help teachers structure their courses and assessments to foster critical thinking and awareness of AI limitations in transport education. Let me know if you want questions adapted for specific teaching contexts or more immediately actionable steps.

3. Long-Term (Prevention and Policy)

- 3.1. How can we develop and implement a university-wide policy on AI use in transport engineering courses?
- 3.2. What strategies can we teach students to critically evaluate AI-generated outputs against real-world regulatory and environmental data?
- 3.3. How can we effectively integrate a “human-in-the-loop” approach into transport simulations to balance AI efficiency with human oversight?
- 3.4. In what ways can we train students to identify and account for local transport constraints and regulations when using AI tools?
- 3.5. How might ongoing curriculum updates incorporate emerging AI challenges and compliance standards in logistics education?

Suggest a declaration text to be added to future assignments.

I declare that

Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		

EXAMPLE CASE 15

CASE STUDY: “THE SMART SIGNAL THAT FAILED – OVERRELIANCE ON AI IN TRAFFIC FLOW DESIGN”

Summary (Scenario)

A student team designs a smart traffic signal system using AI to optimize flow at a busy urban intersection. The simulation shows reduced congestion and improved fuel efficiency. However, during peer review, it's revealed that the AI failed to account for emergency vehicle priority, pedestrian safety during peak hours, and local weather disruptions.

The students used a pre-trained model without adapting it to Sofia's urban context. Their system, if implemented, could compromise safety and violate municipal transport codes.

Key Points (Points of support)

- [1] AI-generated traffic flow ignored emergency protocols and pedestrian safety.
- [2] Students used generic models without local calibration.
- [3] Project risks public safety and legal non-compliance.
- [4] No clear guidelines on adapting AI models to local transport systems.
- [5] Course goal: integrating ethical and contextual awareness into smart mobility design.

I. Scientific Discipline:

II. Specifics of the Scientific Discipline:

III. Possible Actions for Assoc. Prof. VS (Practical Steps)

1. Short-Term (Immediate)

- 1.1 How can teachers require students to redesign AI-based smart mobility projects with explicit safety and legal parameters?
- 1.2 What are effective methods for conducting oral defenses on the ethical implications of AI in smart mobility?
- 1.3 How can the curriculum be flagged and reviewed based on emerging AI ethics and safety concerns?
- 1.4 What other immediate actions can be applied in your discipline to ensure students critically engage with AI models?
- 1.5 How can case-based discussions be implemented to reflect on real-world AI safety failures?
- 1.6 What immediate assessment techniques can help verify students' understanding of legal compliance in AI applications?
- 1.7 How might peer critique sessions be structured to enhance ethical awareness regarding AI decisions?

2. Medium-Term (After Decision on the Case)

- 2.1 How can a “local calibration” module be introduced into smart mobility courses to tailor AI models to specific urban or regional contexts?

2.2 What approaches can be used to require students to submit a detailed written justification for each AI decision point in their models?

2.3 How can these curriculum enhancements align with broader course learning outcomes and ethical standards?

2.4 What ongoing faculty development might be necessary to support teachers in guiding students through these AI calibration and justification processes?

These questions aim to guide teachers in embedding ethical, safety, and contextual awareness into AI-related transport teaching, balancing theory and practice. Let me know if you want these transformed into workshop prompts or integrated into assessment rubrics.

3. Long-Term (Prevention and Policy)

3.1 How can we establish and maintain ethical standards for the use of AI in transport and smart mobility design?

3.2 What frameworks can support students in critically reviewing and adapting AI outputs for local safety, legal, and environmental compliance?

3.3 How might a formal declaration process, confirming critical ethical review of AI-generated models, shape student accountability and learning outcomes?

3.4 How can smart mobility courses incorporate modules on local calibration and contextual adaptation of AI algorithms?

3.5 What assessment criteria can best reward students' inclusion of ethical reflection and contextual modifications in AI-driven project work?

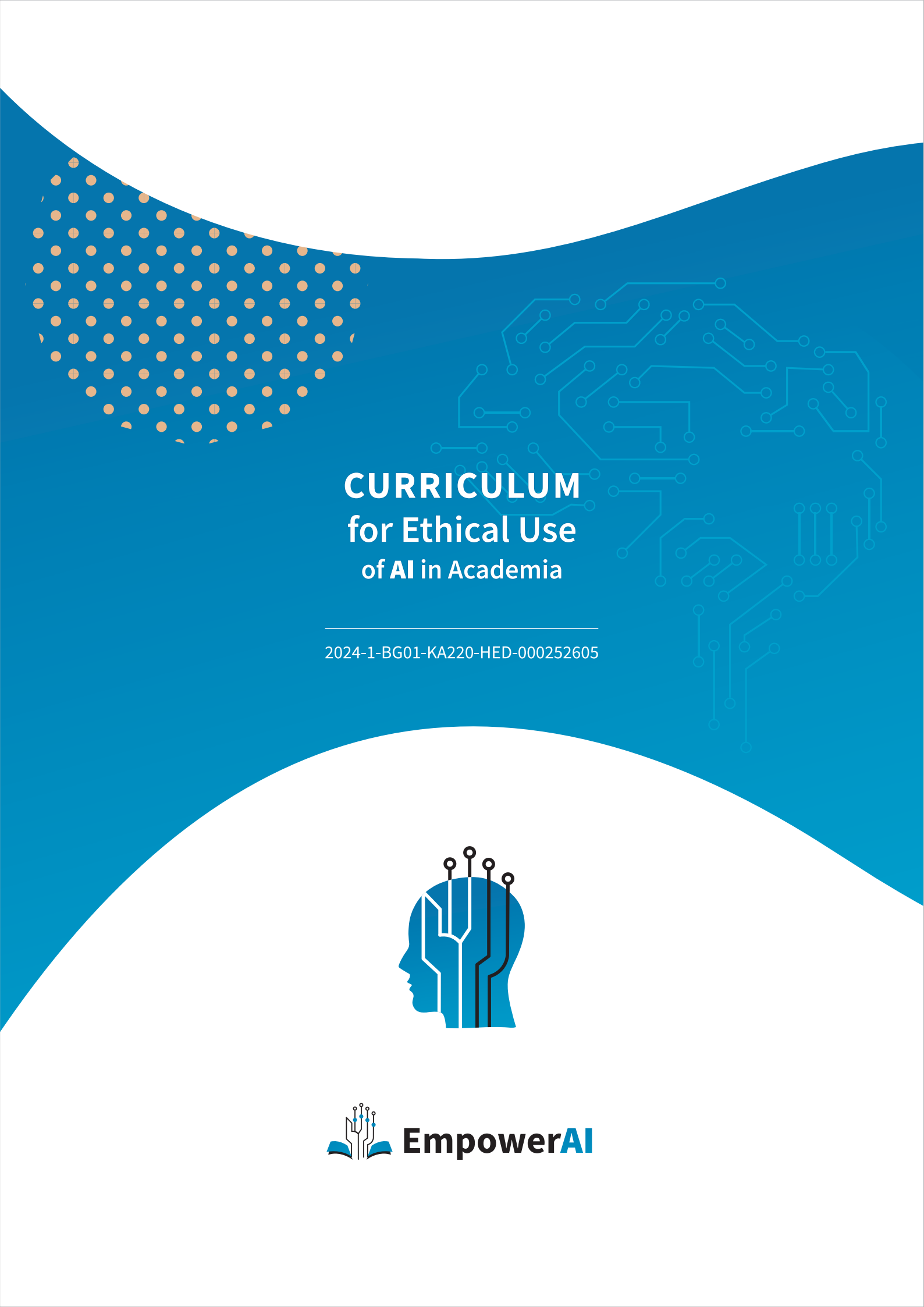
3.6 These questions are designed to encourage deep reflection and proactive planning by educators to prepare students for a responsible, critical, and context-aware use of AI in transport education. Let me know if you want these expanded into discussion prompts or faculty workshop materials.

Suggest a declaration text to be added to future assignments.

I declare that

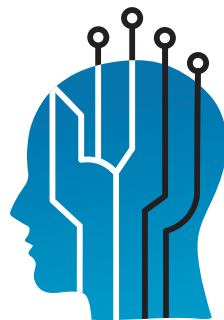
Develop criteria for evaluating and verifying a course project in the discipline you teach with adequate (according to the specifics of the discipline) use of AI.

Criterion	Percentage of the score	Explanation
Understanding and Explanation		Oral and/or written ability to explain decisions and interpret results.
Originality and Contribution		



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