

VNU-HUS MAT3508: Introduction to AI

Preliminaries

Week 0

Semester 1, Academic Year 2026–2027

Hoàng Anh Đức

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- **Course ID:** MAT3508
- **Class IDs:** MAT3508 1, 2, 3, 4
- **Class:** K69A5
- **Number of Credits:** 3
- **Theory:**
 - Friday, 14:50 – 16:40 (Periods 9–10), Room 502-T3
 - **Lecturer:** Hoàng Anh Đức (VNU University of Science, hoanganhduc@hus.edu.vn, GitHub Username: [hoanganhduc](#))

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■ Exercises, Lab: Wednesday, Room 502-T5

- **MAT3508 1:** 07:00 – 08:45 (Periods 1–2), Hoàng Anh Đức (VNU University of Science, hoanganhduc@hus.edu.vn, GitHub Username: [hoanganhduc](#))
- **MAT3508 2:** 07:00 – 08:45 (Periods 1–2), Lê Huy Hùng (VNU University of Science, lehuyhung94@gmail.com, GitHub Username: [HuyHung0](#))
- **MAT3508 3:** 08:50 – 10:40 (Periods 3–4), Hoàng Anh Đức (VNU University of Science, hoanganhduc@hus.edu.vn, GitHub Username: [hoanganhduc](#))
- **MAT3508 4:** 08:50 – 10:40 (Periods 3–4), Lê Huy Hùng (VNU University of Science, lehuyhung94@gmail.com, GitHub Username: [HuyHung0](#))

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■ **Course Website:** <https://hoanganhduc.github.io/teaching/VNU-HUS/2026/winter/MAT3508/>

- *Course information, syllabus, and reference materials*
- *Lecture slides*
- *Announcements related to the course*



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■ Course Platforms: *Google Classroom* and *Classroom50*

- Use a *Google account*, preferably an *HUS email account*, for the form and Google Classroom.
- Use a *GitHub account* for *Classroom50*.
- *Complete* the **course registration form** to provide the information needed for enrollment.
- After registration, *verify that you have access* to both *Google Classroom* and *Classroom50*.



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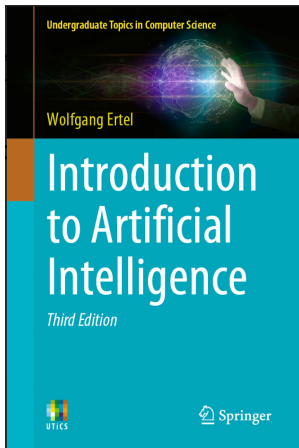
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■ Main Textbook

- Wolfgang Ertel (2025). *Introduction to Artificial Intelligence*. 3rd. Springer. DOI: 10.1007/978-3-658-43102-0



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■ Evaluation:

- **Regular (Chuyên cần):** 20% (10-point scale)
 - **5 points:** Awarded for completing and submitting all lab assignments through *Classroom50*.
 - **Remaining 5 points:** 1 point each time a student *solves an exercise at the board* or *contributes in class* (maximum 5 points).
 - **Attendance deduction:** *1 point is deducted for each unexcused absence recorded during an unannounced attendance check.*
- **Midterm (Giữa kỳ):** 20% (Written Test)
- **Final (Cuối kỳ):** 60% (Mini-Project Report and Presentation)
- **Tuition requirement:** *Students must pay all required tuition fees in accordance with university regulations; otherwise, the Final score (60%) will not be counted.*



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■ Contents (Expected):

- Preliminaries (Introduction to Course Logistics, Mini-Project Announcements)
- Introduction (Chapter 1)
- Propositional Logic (Chapter 2)
- First-Order Predicate Logic (Chapter 3)
- Limitations of Logic (Chapter 4)
- Logic Programming with PROLOG (Chapter 5)
- Search, Games and Problem Solving (Chapter 6)
- Reasoning with Uncertainty (Chapter 7)
- Mini-Project Presentations and Evaluation

Course Plan and Preparation



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- **Semester 1, Academic Year 2026–2027:** 15 weeks
- **Tentative Plan:**
 - **Week 0:** Preliminaries; course and computing-environment setup
 - **Weeks 1–7:** Chapters 1–7; discussion, lectures, exercises, and labs
 - **Weeks 8–9:** In-class time for students to work on their mini-projects
 - **Weeks 10–14:** Mini-project presentations and evaluations
- Changes and formal announcements will be posted on the *course website* and *official course platforms*.
- **Optional Skills:** Prior familiarity with these tools will make it easier to follow the course:
 - *L^AT_EX* (writing reports and preparing slides)
 - *GitHub* (version control, collaboration, and mini-project submission)
 - *PROLOG* (logic programming)

About Exercises and Lab



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- **Week 0:** Set up course accounts, platforms, and the development environment.
- **Weeks 1–7:** Weekly exercises are mainly based on the corresponding textbook chapters.
- *Students must attend the exercise/lab section for which they are registered.*
- *Course materials and sample code* are available in the repository: <https://github.com/hoanganhduc/VNU-HUS-IntroAI-Exercises/>



About In-class Discussion



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- **Preparation:** *Students are expected to review* the assigned readings and recordings before class.
 - *Weekly preparation materials* will be announced at the end of the previous class and on the course website.
- **In-class (Weeks 1–7):** Discussion + review main points in the preparing materials

About Using Generative AI Tools



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- **You are allowed to use generative AI tools** (e.g., ChatGPT, Gemini, Grok, Claude, etc.) to support your learning and complete assignments.
 - GitHub offers “*GitHub Education*” to students *free of charge*. It includes access to *GitHub Copilot*, which supports several premium AI models for coding assistance (subject to monthly premium-request limits). Register via <https://github.com/education>
- **However, you must clearly indicate in your code/report which parts were generated with these tools.**
 - For example, if you used ChatGPT to generate code snippets, explanations, or any other content, you must specify this in your report.
 - You can include as comments the *prompts* you used and the *outputs* generated by the tools.

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- **You are responsible for verifying the accuracy and reliability of any content generated with these tools.**
 - This includes checking for factual accuracy, coherence, and relevance to your specific context.
 - You should also be aware of the *limitations and potential biases* of these tools and their underlying models.
- **For in-class discussion**, you are encouraged to use these tools to help formulate your thoughts and arguments, but **we would love to hear your own insights and perspectives.**

Mini-Projects: Start Here



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Scan to open
the student
template.

- **Group:** one to five students from the same course; choose exactly one *funder*.
- **Evaluators:** Hoàng Anh Đức (hoanganhduc) and Lê Huy Hùng (HuyHung0).
- **Student template:**
github.com/VNU-HUS/introai-final-project-template
 - Read Submission Guide.md.
 - Study the worked topic-proposal example.
 - Evaluation is manual; see Rubrics.md.

Mini-Projects: One Group Repository



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- The Classroom50 final-project acceptance link is published on the course page from *2026-09-11 13:00 ICT*.
- *Only the founder accepts*. Other members must not accept separately; separate acceptances can create duplicate repositories.
- Classroom50 creates one *empty private repository*. The founder bootstraps it from the student template and adds the other agreed members as collaborators.
- Record one to five members in `team.json`. Use that one repository for the proposal, code, report, slides, and declarations.
- Course teachers already have the required organization and course access. Add the agreed group members; do not add the lecturers again merely to enable evaluation.

Mini-Projects: Prepare the Proposal



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- The group jointly completes the authoritative `proposal/proposal.md`. Every listed member must review and agree to the proposal.
- Use the completed proposal example for structure, not as text to copy.
- `Mini-Project Ideas.md` is optional inspiration. The group must define its own precise, feasible selected problem and explicit non-goals.
- Optionally run `check_project_files.py`. It is an offline structural check: it assigns no score and does not judge project quality.
- Commit and push the unanimously agreed proposal. Keep its permanent GitHub commit URL or complete 40-character SHA; a branch URL is not an immutable submission identifier.

Mini-Projects: Register the Topic



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- *Accepting the Classroom50 assignment does not register the topic.* Topic registration is the class-visible record on the course topic board.
- First search the topic board for the exact group-repository URL and the founder's GitHub username.
- If no valid issue exists, the founder opens one Project topic proposal issue and links the exact proposal commit. Follow the completed issue example.
- The course-specific topic-board link will be published on the course mini-project page after the board is created and verified.
- Each group uses one canonical issue. Post every proposal update, duplicate-problem correction, scheduling message, and final submission in that same issue.
- The founder is the default administrative representative and issue custodian, not a unilateral decision-maker.

Mini-Projects: Important Notices



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- Put official full names and student IDs only in the private group repository. The class-visible issue lists GitHub usernames only.
- Topic-board labels are `status: submitted`, `status: recorded`, and `status: duplicate-problem`.
- `status: recorded` means only that no earlier exact duplicate was found when staff reviewed the issue. It is *not academic approval* and does not guarantee feasibility, correctness, quality, or a passing grade.
- Classroom50 grading is off. The project is graded manually according to `Rubrics.md`.
- All members are responsible for the proposal and final submitted commit; unequal documented contributions may affect individual marks.

Mini-Projects: Deadlines and Submission



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- **Initial proposal commit and canonical issue:**
2026-09-20 23:59 ICT.
- **Exact-duplicate correction, when required:** *2026-09-27 23:59 ICT.*
- **Final commit and FINAL SUBMISSION issue comment:**
2026-11-04 23:59 ICT.
- Follow `report/README.md` and `slides/README.md`; every group member participates in the presentation.
- Complete `docs/CONTRIBUTIONS.md`, `docs/AI_USAGE.md`, and `docs/EXTERNAL_RESOURCES.md`.
- Properly cite external code, data, models, papers, figures, services, and generated content. Do not commit credentials or unnecessary personal data.

Mini-Projects: Purpose and Scope



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- A mini-project gives you experience *applying AI models and algorithms in practice*.
- We do not require an entirely new idea or solution.
 - You may understand, reproduce, evaluate, and explain an existing idea, project, or published paper with proper attribution.
 - You may combine existing ideas to address a clearly stated problem.
- You are also welcome to develop a new idea or solution grounded in existing work.
- Keep the project reproducible: document setup, inputs, outputs, external resources, licenses, limitations, and each member's contribution.

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■ All submitted works must be your own and reflect each group's contributions.

- *Every submission must include* a clear list of group members and a short statement of each member's contributions.
- Use the single private Classroom50 repository assigned to the group. Include a README that documents roles and the contribution timeline. Course teachers already have organization access; add only the agreed group members as collaborators.
- You may discuss with classmates, use online resources, or use *AI tools* (e.g., ChatGPT, Grok, Claude, Copilot) to aid understanding. *Any content (text, code, figures, data, or generated text) not authored by the group must be explicitly cited. If AI tools are used, include the prompts and model outputs as an appendix or comment block.*

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- *Copying another group's work, published solutions, or online code without proper attribution is plagiarism and will be penalized.*
- If contributions are unequal or disputed, *individual grades may be adjusted* based on documented contributions and instructor assessment.

■ Responsibility and consequences:

- You are responsible for understanding and following the *university's academic integrity policies*. *Violations can lead to failing the assignment or course and other disciplinary actions.*
- *All group members are accountable for the final submission.* Misconduct discovered in a group's work will trigger an investigation and may result in *penalties for some or all members.*

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